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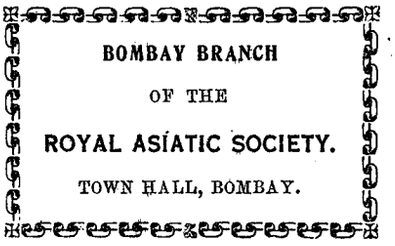

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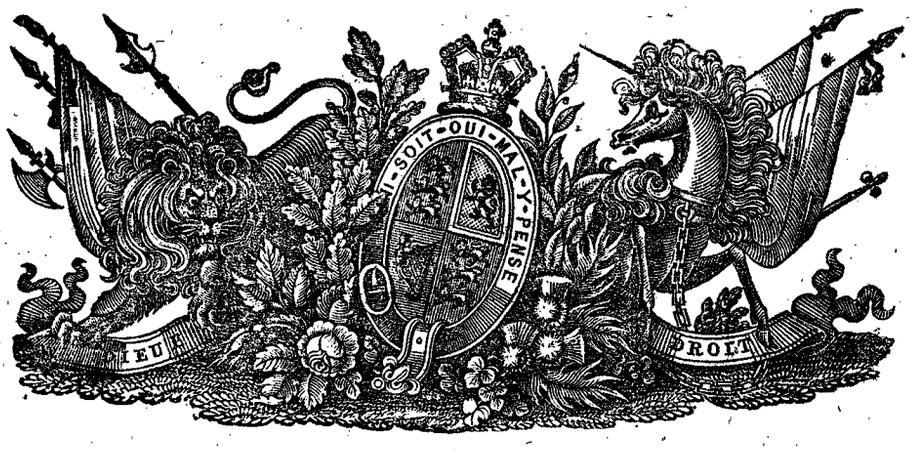

ADMINISTRATION REPORT

OF THE

RAILWAY DEPARTMENT,

BOMBAY PRESIDENCY,

FOR THE YEAR

1884-85.

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Bombay
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1885.

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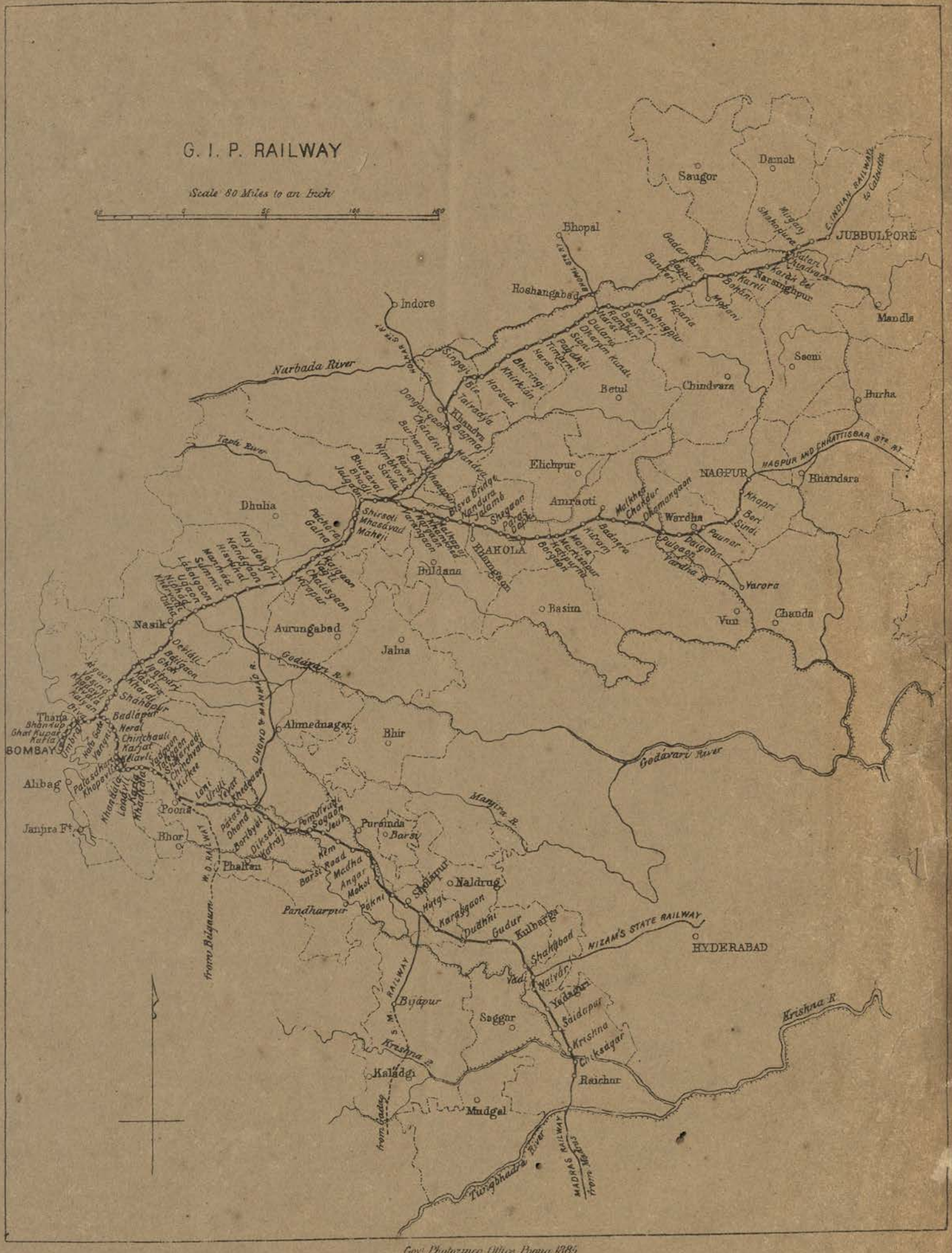

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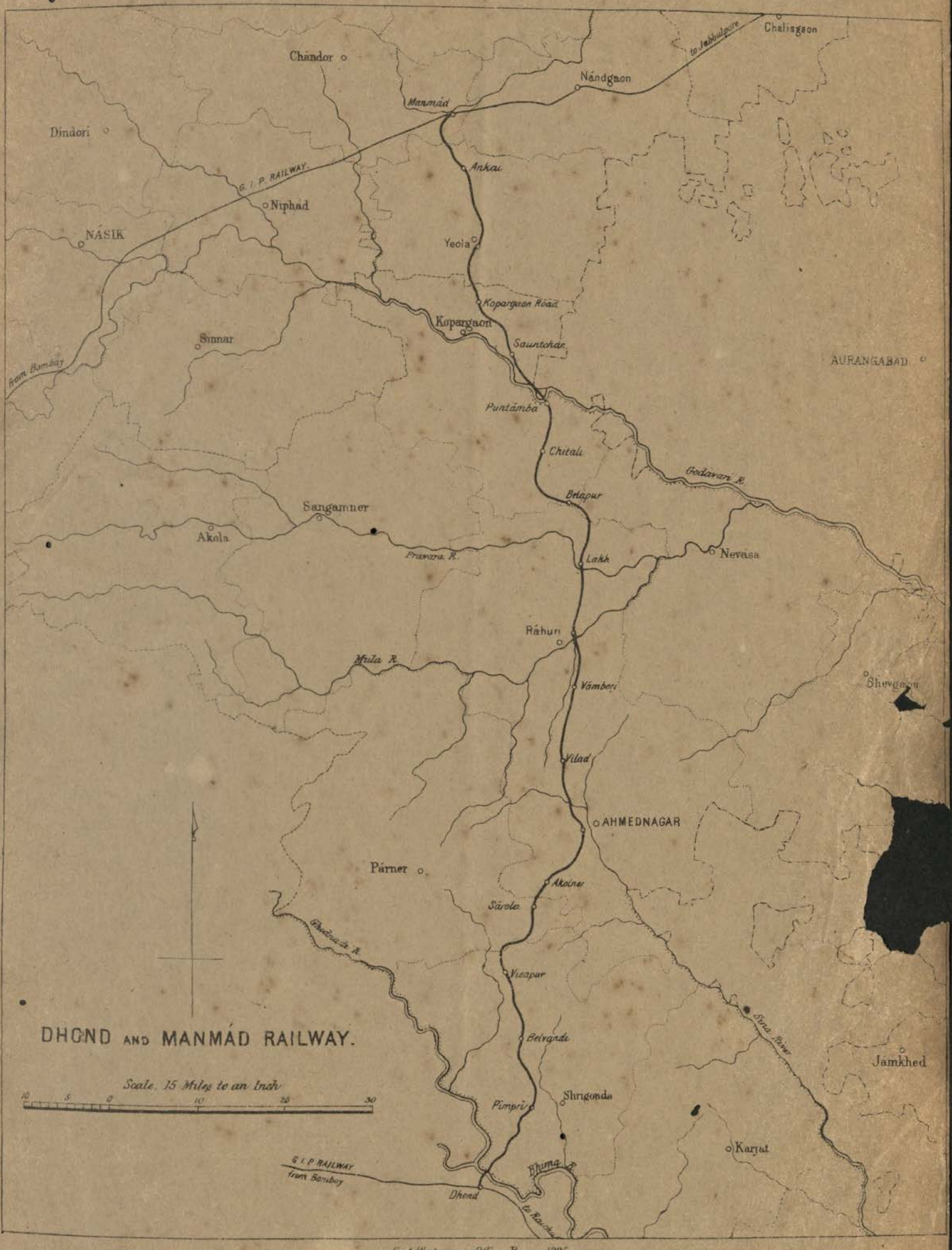

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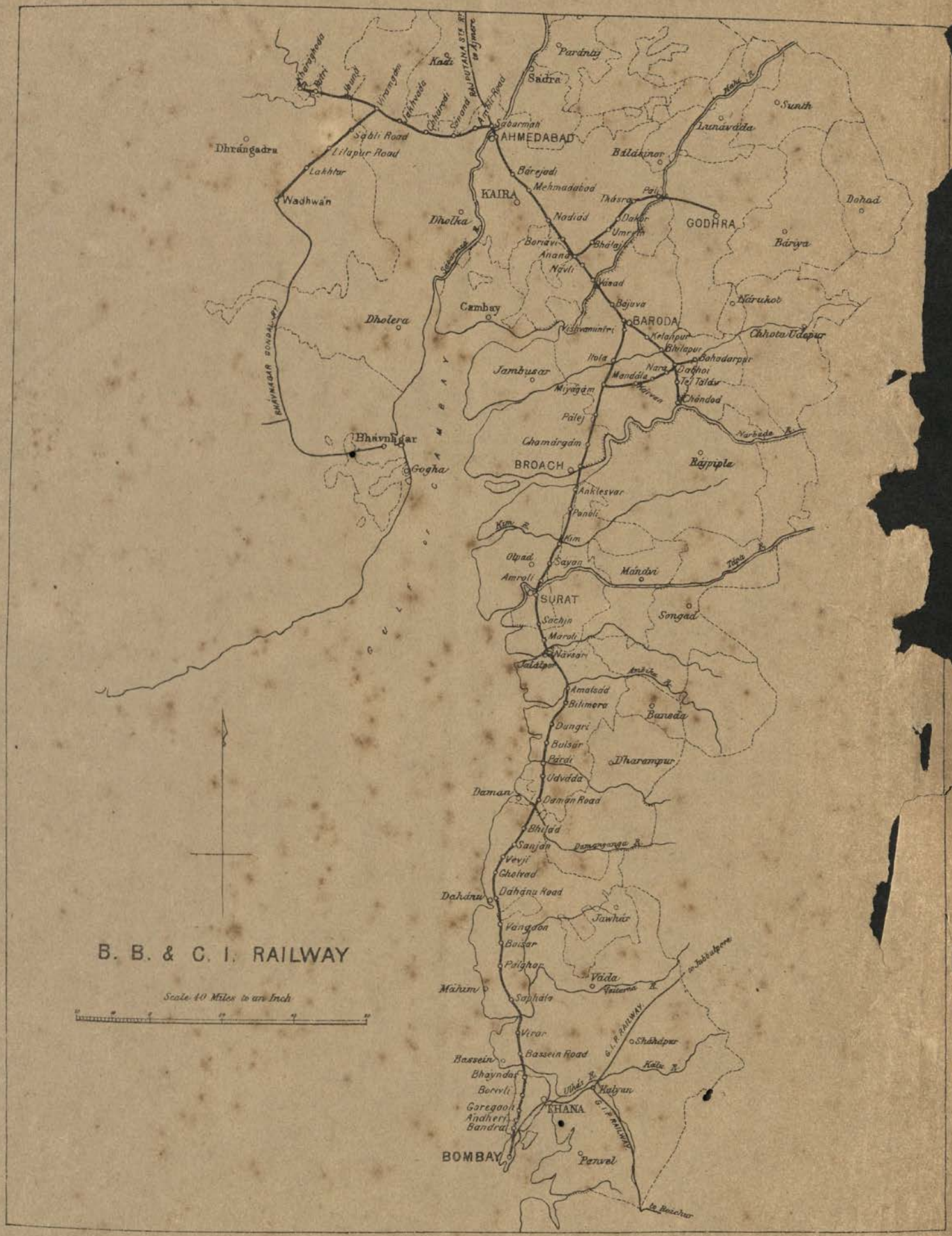

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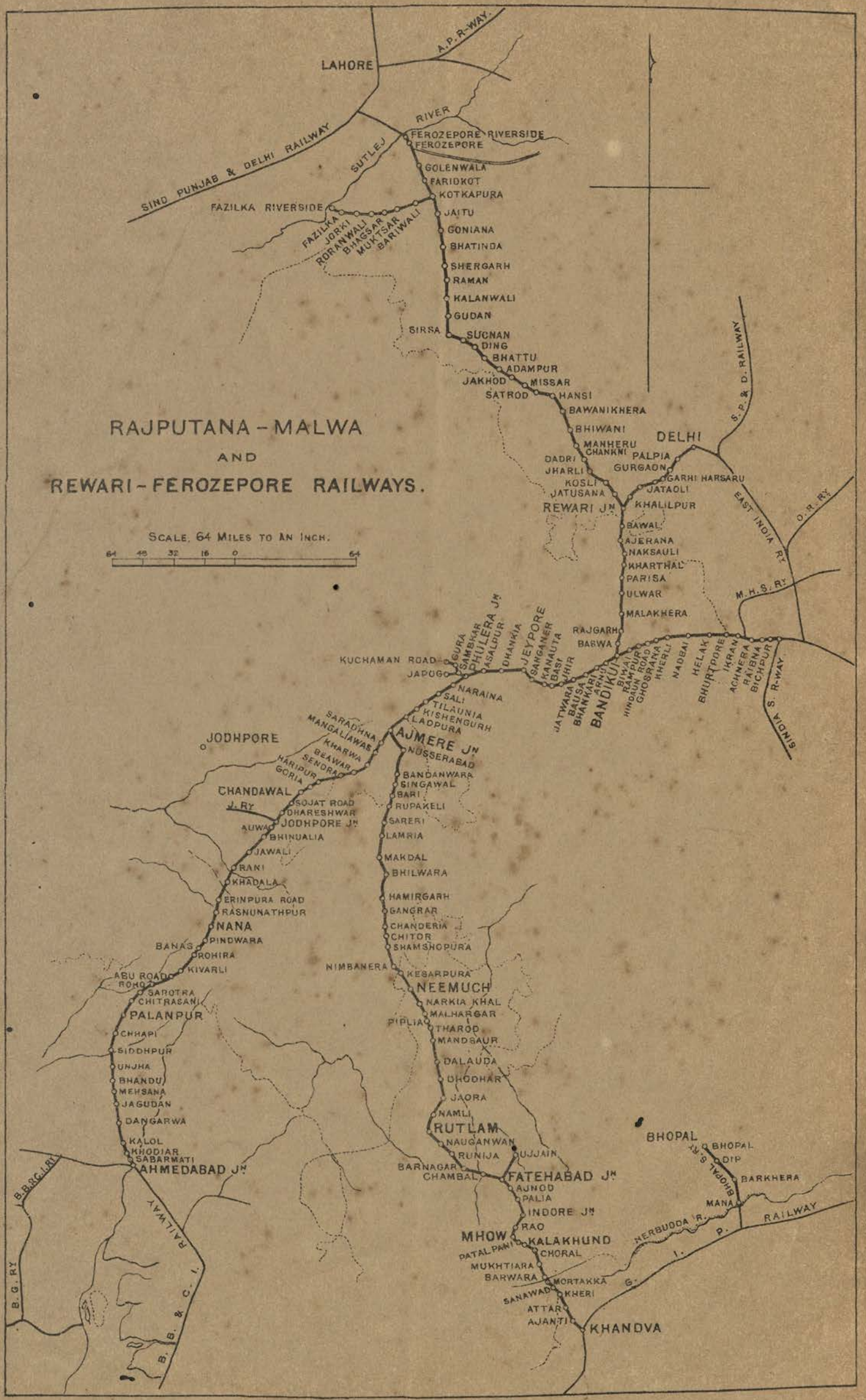

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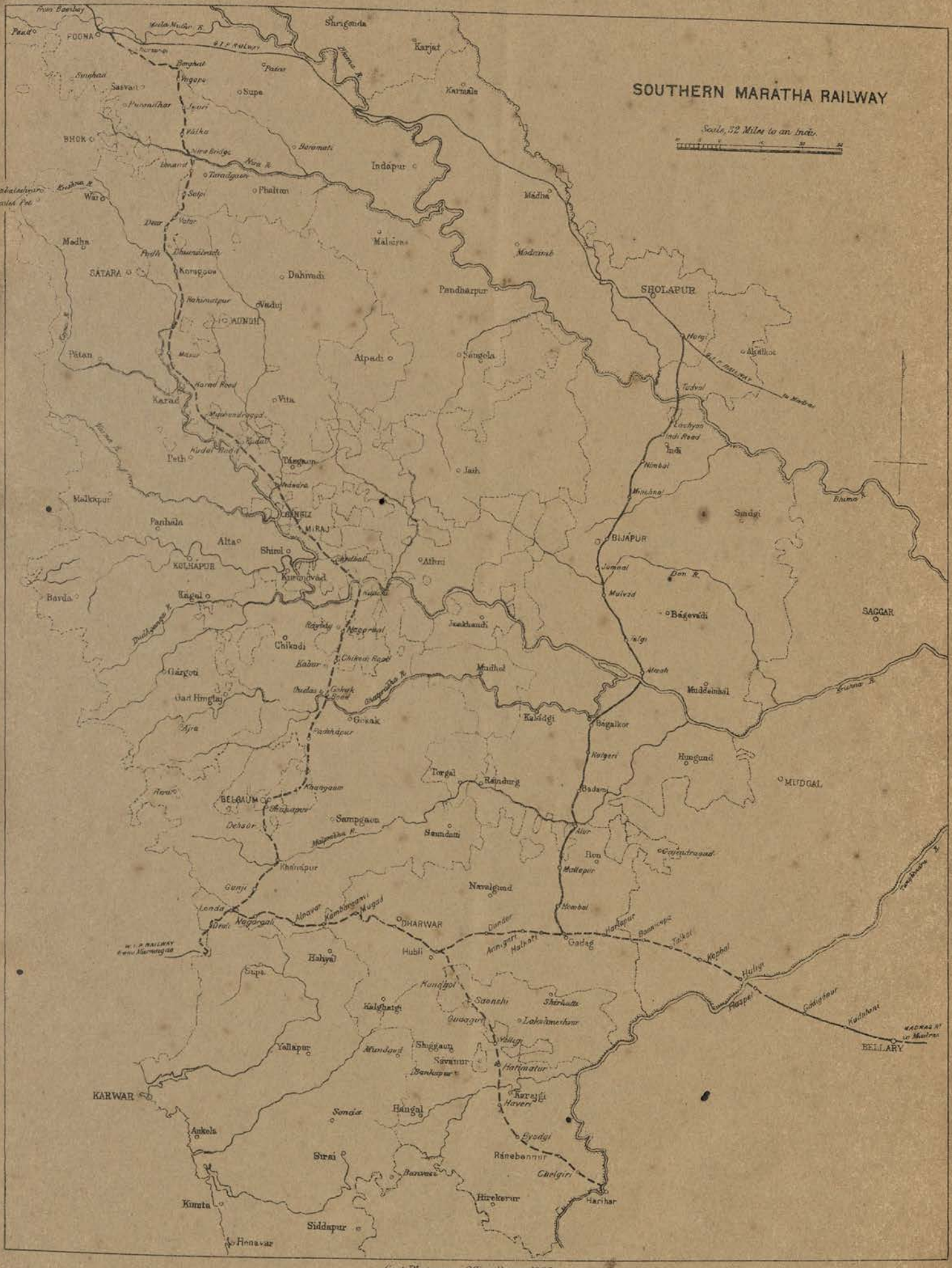

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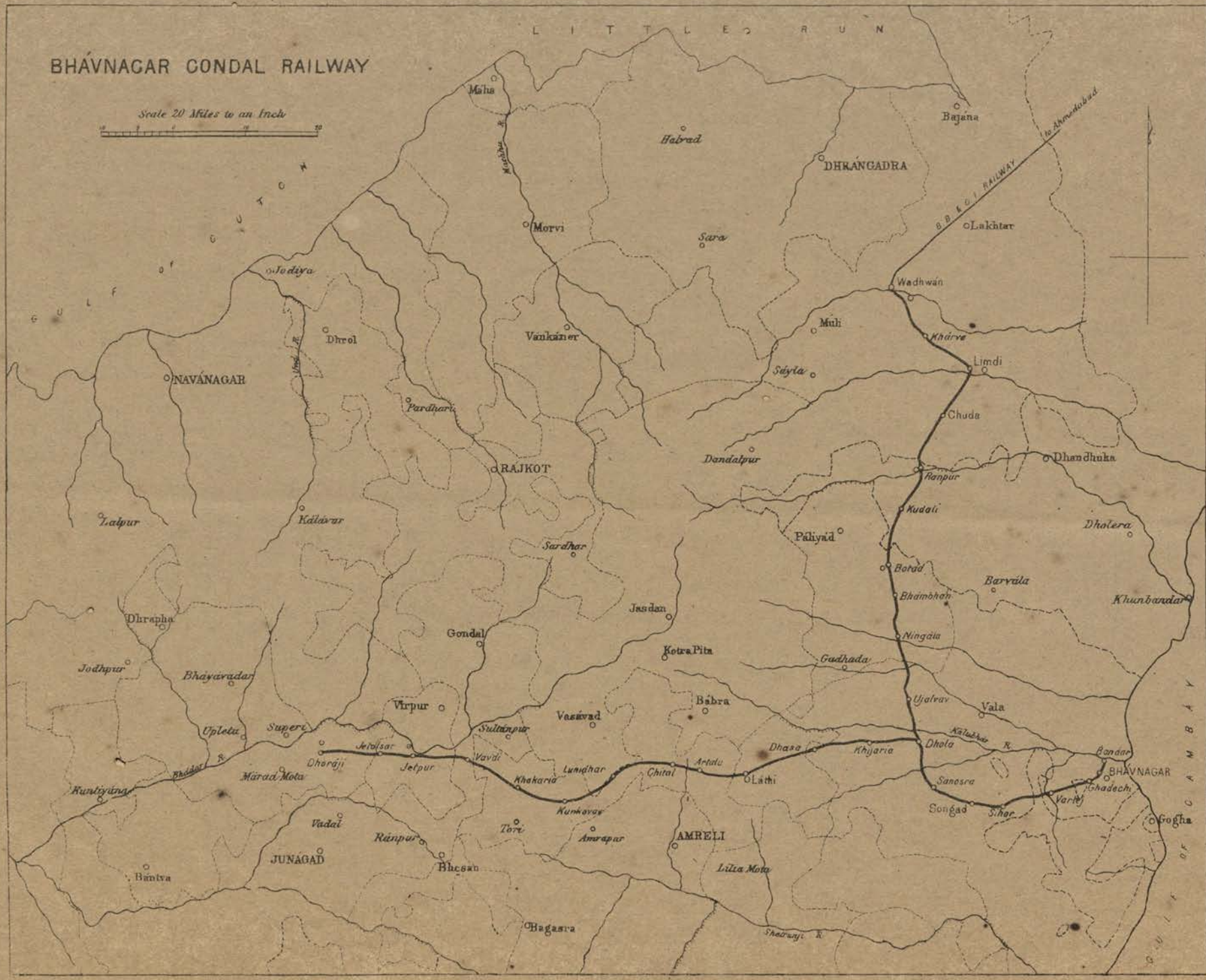

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ADMINISTRATION REPORT

OF THE

RAILWAYS UNDER THE GOVERNMENT OF BOMBAY FOR 1884-85.

The following statement shows the length of lines, Guaranteed and State, including Provincial lines, under survey or construction or open for traffic, under the control of the Bombay Government during the year 1884-85 :—

Gauge.	Railway.	Open for traffic for any part of the year.	Under construction.	Under survey.	Remarks.
		Miles.	Miles.	Miles.	
	G. I. P. Railway...	1,288	...	...	Guaranteed.
	Dhond and Manmád Railway	145¾	...	...	State, Imperial.
	Khámgaon Branch	8	...	....	
5' 6"	Amraoti do. —	6	...	...	
	Bhopál Railway	57	...	...	
	Dhulia Branch	...	...	34	Provincial.
	Bársi do.	...	...	20½	
Metre ...	Southern Marátha Railway	214	504½	13	Guaranteed.
	B. B. & C. I. Railway	438½	...	...	
	Pátri Branch	22½	...	...	State, Imperial.
5' 6"	Rutlám Extension	...	...	111¼	
	Vihara Branch	...	...	38	Provincial.
Metre ...	Rájputána-Málwa Railway	1,123¼	...	...	State, Imperial.
Metre ...	Rewari Ferozpur Railway	290¾	...	...	
	Broach-Jambusar Line	...	...	31	Provincial.
2' 6"	His Highness the Gáekwár's Railway...	58¾	...	...	
	Anand *vid* Piploe to Dewa Talpad ...	...	...	34	Native State.
Metre ...	Mehsana to Vadnagar	...	...	20	
Metre ...	Bhávnagar-Gondal Railway	193¾	...	...	
Metre ...	Jodhpur State Railway...	65	...	...	
2' 6"	Wadhwan-Morvi	...	68	...	
	Total ...	1,940½	572½	13	Guaranteed.
		1,653¼	...	111¼	State, Imperial.
		317½	...	54	Native State.
		...	...	123½	Provincial.
	Grand Total ...	3,911¼	572½	301¾	

The management and working of the Rájputana-Málwa Railway system, including the Rewari-Ferozpur line, was made over to the B. B. & C. I. Railway Company on 1st January 1885 under an agreement concluded between the Company and the Secretary of State, dated 24th September 1884, a copy of which will be found in Appendix C.

The Administration Report of the Rájputana-Málwa Railway, which was under the control of the Government of India up to the 31st December 1884, is being separately prepared by the Agent, B. B. & C. I. Railway Company, and is not embodied in this Report.

I.—Works in Progress.

G. I. P. Railway System.

Additions to mileage.—The Hoshungabad-Bhopál section of the Bhopál State Railway, 45¾ miles, was opened for public traffic in November 1884, and was handed over for working to the G. I. P. Railway Company.

The working agreement will be found in Appendix A.

The earthwork necessary for doubling the line from Bhusával to Khandwa and from Bhusával to Shegaon is in progress.

Bombay Terminus and General Offices.—The Administrative offices at the Bori Bandar Terminus are approaching completion, and it is anticipated that by the end of June 1885 all works will be finished except the central main dome and the two smaller domes, and that these will be ready by January 1886: so that by the end of next official year it may be expected that the building will be fully occupied by the staff.

Carriage Sheds, Goods Terminus, at Bori Bandar.—The work of levelling and ballasting the goods terminus at Bori Bandar is in progress; sidings have been laid for carriage washing and lifting; and a Tank House is about to be commenced.

Goods Terminus, Wádi Bandar.—The goods terminus at Wádi Bandar has practically been completed as sanctioned.

The deepening of the basin and the removal of projecting rocks is in progress.

Byculla Overbridge.—A new overbridge to carry the Parel Road over the Railway at Byculla was commenced in January 1885. It will be completed, it is hoped, in July, and an overbridge, which is to be paid for by the Bombay Municipality, will then be commenced to take the place of the level crossing at Nesbit Lane.

Quadrupling Line.—The quadrupling of the main line of the G. I. P. Railway north of Nesbit Lane will then be taken in hand. A new station will have to be built at Byculla to enable the four lines to be carried through.

Parel Stores Depôt.—Completed.

Locomotive Depôt and Marshalling Sidings at Parel.—An alternative proposal to extend the existing Running Shed at Byculla, and to build new staff quarters facing Parel Road is under consideration. The saving in cost by the adoption of this alternative would be very considerable, and as an overbridge is to be built at Nesbit Lane, one of the chief reasons for removing the depôt to Parel will disappear.

District Engineers' Workshops, Byculla.—Proposals have been made for new engineering workshops on the land now in possession of the Company at Byculla.

Re-building Bukri and Ajanta Bridges.—The temporary bridges over the Bukri and Ajanta rivers, which had replaced the permanent structures washed away in 1883, were themselves completely swept away by a heavy flood in July 1884. The permanent bridge in course of construction over the Ajanta was sufficiently advanced at the time to permit of rails being laid on the girders and of traffic being passed over at a low speed. Across the Bukri, trains had to run over a temporary diversion, which was slightly interrupted at intervals during the monsoon. The speed restriction across the Ajanta Bridge was removed in February 1885, and a single line over the Bukri Bridge will be opened in a few days.*

Extra sleepers, Nagpur Branch.—The work of putting an eighth sleeper under each 24-foot rail in progress. Only a few miles remain to be done.

Hotgi Junction.—The joint station buildings nearly complete.

Dhond.—Staff quarters all in hand.

Lonávla.—Reading room and staff quarters in hand. The school will be commenced as soon as the land is handed over.

Harda.—Reading room complete.

Sohagpur.—Locomotive siding complete.

Itarsi Junction.—New well for joint station will shortly be completed.

Khandwa Junction.—It is proposed to reconstruct the passenger junction station.

The goods station complete except Goods Agent's Office in progress.

The improvements in the water-supply are nearly complete.

Bhusával Junction.—Additions and alterations complete except the interlocking arrangements which are deferred in view of the doubling of the line beyond Bhusával.

Thull and Bhor Ghâts.—Interlocking gear has been ordered for catch sidings and reversing stations.

Igatpuri.—The piping for the improved water-supply is complete. Two engines being erected.

Reading room, church and school-house will be commenced, as soon as the necessary land has been acquired. Staff quarters in progress.

---

* Since opened on 10th April 1885.

Kárla.—A design for an entirely new station has been submitted.

Thána.—Cross-over road in progress.

Nándgaon.—Extension of sidings completed.

Páunar.—Dwellings for station staff in hand.

Bori.—New station in hand.

Additional Engine Stock.—60 new engines were added during the official year. 43 more are shortly expected to arrive from England.

Additional Coaching Stock.—Of 100 brake vans sanctioned, 80 were turned out last year. The remaining 20 are awaiting material from England.

Of the 100 additional third class stock sanctioned 30 are under construction.

B. B. & C. I. Railway.

Additions to Mileage.—On the 1st January 1885 the working and management of the Rájpútána-Málwa Railway were made over to the B. B. & C. I. Railway Company.

The doubling of the line between A'ndheri and Virár was nearly ready for opening at the end of the official year.*

The doubling between Kánkra Khári and Sachín, also between Ahmedabad and Barejadi is in hand.

Passenger Station, Colába.—The plan of the proposed extension is again under consideration. Certain additions and alterations have been sanctioned, including the transfer of the Engine Turntable from its present site in the goods yard to a position near the Passenger station.

Mody Bay Goods Terminus.—With the exception of the two Lie-bye sidings, land for which was lately made over by the G. I. P. Company, the works have all been completed. The alterations which were sanctioned, to be carried out from savings, have been nearly finished.

Mody Bay Grain Sheds.—Platforms and roofs are completed. Delay in completing this work is caused by the late arrival of material from England.

Dádar Watering Arrangement.—Tank erected and pipes laid. The work will be completed as soon as connection can be made with the Tulsi Main.

Strengthening South Bassein Bridge.—This work was in abeyance for some time for want of material. Screwing, mounting, and erection of additional columns with bracings were completed before the close of the year. With few exceptions, continuous girders have been erected throughout. The taper screw piles lately supplied were tried here, and, as might have been expected from their enlarged base, are reported to offer greater resistance in screwing than the ordinary piles.

Strengthening North Bassein Bridge.—Work was commenced at this bridge during the year and fifth columns have been erected at nine piers. The average depth of screwing was 23 feet. The work had then to be stopped for want of material.

Strengthening Tápti Bridge.—The works originally sanctioned for this bridge are complete. Of the four northern piers, the upstream columns of piers 2, 3 and 4 were screwed 18 feet deeper each, and downstream and centre columns of piers 2 and 4 screwed 9 feet deeper each. The whole of the sanctioned work will be completed by the end of the season.

The undermentioned works shewn in the List of Capital Open Sanctions for quarter ended 31st March 1885 are in hand or about to be undertaken :—

Point indicators at 51 stations.

20 Additional bays roofing Parel shops.

Re-construction of station at Bháyndar.

Provision and erection of pumps at Dáhánu.

Alterations in the Dongri Station Yard.

Providing complete interlocking apparatus and erecting quarters for the signalling staff and pointsmen at Surat Station.

Adding an upper storey to a block of drivers' quarters at Ahmedabad.

Providing a 5-ton portable hand crane at Ahmedabad.

---

* Opened from A'ndheri to Bháyndar on 27th April 1885.

LOCOMOTIVE WORKS.

Construction of 300 *covered Wagons.*—200 of these are done and the rest are being built as fast as the Ironwork is received.

Additional Steam Hammers and 20 *Smiths' fire places at Shops, Parel.*—These are in hand.

SOUTHERN MARA'THA RAILWAY SYSTEM.

Major-General Hancock, R.E., Consulting Engineer for Railways, inspected the whole of the Southern Marátha Railway undertaking during the working season of 1884-85.

His notes of the inspection made of the works in progress on the unopen line, West and South Deccan Railways, are as follows:—

WEST DECCAN LINE.

The West Deccan line has been divided into four Executive Divisions, *viz.*:—

	Miles.
(1) Poona Division ... ... (Executive Engineer, Mr. Hallum.)	... 0 to 83
(2) Karád Division ... ... (Execution Engineer, Mr. Jopp.)	... 83 to 147
(3) Miraj Division ... ... (Executive Engineer, Mr. Stables.)	...147 to 208
(4) Londa Division ... ... (Executive Engineer, Mr. P. Scott.)	...208 to 273

On the Poona Division the most important works are the Bhor and Sálpeh Ghâts and the bridges over the Kara (9-30 feet arches) and Nira (12-50 feet arches). The progress made on this Division, on which work was started in March 1884, has, as I have already reported, been surprisingly rapid. Mr. Molesworth has remarked on the work done on this Division as follows: "Taking into consideration the rapidity of progress, the excellent character of the work, and the rates at which it is being executed, I can say without hesitation that I have not seen its equal on any other railway in India, and I am of opinion that it reflects the highest credit on all concerned with it." In these remarks I fully concur. I see nothing now to prevent the works on this Division being completed and the line ready to be opened for traffic in January 1886.

On the Karád Division, started in August last, the works are generally light, and they are well in hand. The most important work is the bridge over the Yerla at the 147th mile (10-girder spans of 60 feet). This bridge had not been commenced on the date of my visit (23rd December). It was decided after an inspection of the river to shift the site about ¾ of a mile up stream where rock foundations may be obtained near the surface for all the piers. Materials are being collected, and once started, the bridge will not take long to complete. There are no other large bridges on this Division, but the waterway allowed in the original section was inadequate, and it has been determined to increase it considerably. Provided satisfactory progress is made this season with the Yerla Bridge, I see nothing to prevent this piece of line and the first 12 miles of the Miraj Division being ready for opening by the 1st January 1886. That is to say, by this date I think it will be possible to open the West Deccan from Poona to Miraj—159 miles—provided the supply of rolling stock is not again behind-hand. As the line will open up a fertile country, and Miraj is an important trade centre and well provided with roads leading to the adjacent districts (*see* my recent Notes on station sites and road feeders), it will be to the interest of all that it should be opened for traffic as soon as possible.

On the Miraj Division work was only started in November last, and construction can hardly yet be said to have begun, but contractors are eager to take it up, and arrangements are being made for an immediate commencement. From the 147th mile to Miraj the work will be light. The Bisgaon Nála will be crossed by a bridge of some size. Between Miraj and the Krishna—178½ miles—there will be some heavy work; the country is tolerably easy to the 166th mile; thence rugged and broken to the 170th mile; and a black soil plain, liable to inundation from the Krishna, from that point to the river crossing.

The Krishna will be crossed at 178½ miles by a bridge which will probably consist of 11 or 12 spans of 150 feet, but the design has not been finally settled. The piers will be about 70 feet high. Rock foundation are obtainable throughout at the site selected for the bridge. The approach from the north will be by

a long embankment crossing the low-lying land above referred to. On the south there is high ground beyond the reach of floods. This bridge is the key of the position as regards the prospects of completing the line through from Poona to Belgaum, and until the work has been fairly started, no date can be fixed for its completion; but it is not a work of extraordinary difficulty, the foundation being good and fine stone plentiful.

Beyond the Krishna the line traverses rolling, hilly ground cut up into ravines involving some stiffish cuttings and banks until it has crossed the ridge, which divides the watershed of the Krishna from that of the Ghatprabha at about 196 miles; thence it is easy for about 6 miles where (between 202 and 206 miles) it crosses a spur involving heavier work. It descends thence over an easy country to the Ghatprabha, 208 miles—the end of the Miraj Division. Throughout this Division, also, allowance for waterway in the original section was insufficient, and a considerable increase has been decided upon. According to the original section the line would cross the Ghatprabha above the bund; but after full discussion it has been decided that a preferable site for the bridge will be below the bund. By this change the length of the bridge will be increased, but it can be built cheaply and expeditiously as all the foundations will be on the dry rocky bed of the river, whereas at the site originally selected they would mostly be in deep water. Moreover, if the bridge is built below the bund as now proposed, it cannot affect or be affected by the irrigation works. It is in contemplation, I understand, to raise the bund hereafter. A good site for the Gokák Road Station can be found on the left bank, not far from the bungalow belonging to the Irrigation Department, and the canal on that side will be crossed, where it is in deep rock cutting, by an inexpensive bridge. The length of the line will be slightly increased, but the gradients will be improved.

An application made by Mr. Douglas, of the firm of Ritchie Stewart & Co. that the railway should be carried round by the Gokák falls, was discussed and considered. Mr. Molesworth himself reconnoitred the country in the vicinity of the proposed crossing, which had previously been examined by Mr. P. Scott, the Executive Engineer, Londa Division, and he has expressed his entire concurrence in Colonel Lindsay's opinion that although it would be possible to divert the railway in the manner suggested, the extra cost and the addition (not less than 4 miles) to the length of the line which the deviation would involve, would not be justified by the advantages gained. Should the scheme for establishing factories to be worked by water-power obtained from the falls, in which Messrs. Ritchie Stewart & Co. are interested, be carried to a successful issue, it will, no doubt, be worth their while to construct a branch line to their works. The length of such a branch would be about 4 miles, and the ground on the right bank of the river is not unfavourable for its construction.

The Londa Division commences on the left bank of the Ghatprabha at 208 miles, the bridge over that river and over the Malprabha at 258 miles being the most important works. The earthwork generally is light, but there are some high banks and deep cuttings on the last 20 miles, and more waterway will be required than was provided for in the original section.

The question of the site of Belgaum Station was discussed, and has been separately reported upon.

Colonel Lindsay will shortly submit designs for the Ghatprabha and Malprabha bridges. The site now selected for the former will admit of small spans—30-feet arches or 40-feet girders being used. There is a deep-water channel between rocks at the Malprabha, which it will probably be advisable to cross by a single span of 100 feet; arches being used to bridge the rest of the river-bed on both sides. The approach to the Malprabha bridge from the south would, as laid out, be on a curve of 1,000 feet radius, but it may be flattened to a curve of 1,500 feet radius without much increase of cost, and it has been determined to make the alteration, as sharp curves on descending gradients on bridge approaches are always undesirable.

The last 30 miles of the Londa Division, from Belgaum to Londa Junction, will be completed by the time the line from Dhárwár to Londa is finished, and it is intended to open both for traffic at the same time.

The Executive Engineers in charge of Divisions have been instructed to prepare revised estimates, and these will in due course be submitted for sanction by the Chief Engineer in accordance with Bombay Government Resolution No. 1843, dated 7th October 1884.

The following is a list of the stations now proposed on the West Deccan Railway :—

	Mileage from Poona.
Poona—Junction with G. I. P. Railway... ...	0
Phursangi	10¼
Rajewadi	24½
Jejuri	32
Walhe	41½
Lonand	52¼
Sálpa	58
Wáthar	68¼
Sátára Road	73
Koregaon	83½
Rahimatpur	90
Targaon	97
Masur	105¾
Karád Road	113¼
Shenoli	121½
Takári	130
Kundal	135¼
Ashta Road (Tásgaon)	143¾
Miraj	159
Shedbal	169¼
Kudchi	179¼
Raybág	190
Chikodi Road	198½
Gokák Road	208
Pácchápur	220
Kangaon	232¾
Belgaum	242
Desur	249
Khánápur	258
Itargi	265½

The engine-changing stations will probably be Koregaon, Miraj and Belgaum, but no final decision has been come to.

The name of Kangaon (232¾) miles should be changed to avoid confusing it with Khámgaon in the Berárs. This has been pointed out to the Chief Engineer.

South Deccan Line.

The South Deccan line is at present divided into two Executive Divisions, *viz.* :—

	Miles.
(1) Bellary Division ... ... (Executive Engineer, Mr. Mackenzie.)	0 to 94
(2) Hubli Division ... ... (Superintending Engineer, Mr. Buyers.)	94 to 204

When the Southern extension from Hubli to Harihar is commenced, the work will be re-distributed.

On the Bellary Division the first 40½ miles, Bellary to Haspet, are open for traffic.

Beyond Haspet the most important works are the bridge over the Tungbhadra, 35-girder spans of 60 feet, and the Burra Nála, 10-girder spans of 60 feet. The last pier of the Tungbhadra bridge was founded on the 26th January. The remaining piers and the abutments were then far advanced towards completion, about 15 spans of girders being in place. It is confidently expected that the bridge will be finished before the end of March.

At the Burra Nála the last pier was founded on the date of my last visit, 29th January, and this bridge will be finished about the same time as the Tungbhadra.

The rest of the bridges on the Division are well forward. The earthwork, except on the bridge approaches, is practically finished, and the permanent way is laid to the 79th mile. The road is about half ballasted, and there is a good deal of ballast collected. Assuming that the future progress at the large bridges is as satisfactory as it has been so far, I think the whole line from Haspet to Gadag (Junction with East Deccan) will be ready for inspection with a view to its being opened for passenger traffic by the first April. In his Note on this part of the line, Mr. Molesworth expressed the opinion that the Tungbhadra bridge might be finished in February, but after his visit the heavy rain which fell about Christmas time flooded the river, and threw back the works. The quality of the masonry work on this Division is excellent, and when it is remembered that it is barely a year since the Tungbhadra bridge was taken over from the late contractors—Messrs. Redmond and Stephens—and that beyond collecting some stone they had done little or no work there, the rapid progress is highly creditable to the Engineers engaged. The same remark applies to the rest of the work which was relinquished by Messrs. Redmond and Stephens in March 1884.

On the Hubli Division the most important works between Gadag and Dhárwár, 94 to 142 miles, are the bridges over the Soule and the Benihalla Nálas—the former, 3-girder spans of 60 feet on well foundations, the latter, 9-girder spans of 60 feet. Both these bridges are backward, much difficulty having been found in obtaining reliable sub-contractors to take up the work; but if a good start is now made, and the work is vigorously pushed, they may be completed before the monsoon. The rest of the work between Gadag and Hubli, which was taken over from Messrs. Redmond and Stephens in March 1884, is well advanced, and the bridging is light, while the section between Hubli and Dhárwár is practically finished. Ballast trains are now running between Gadag and Dhárwár, diversions having been laid in at the unfinished bridges. I think that this section of the line will probably be ready for inspection with a view to its being opened for passenger traffic some time in April, the Soule and Benihalla being crossed as now by temporary diversions. It is very important, however, that the permanent bridges at these two points should be completed before the rains; as if they are not, the traffic will be interrupted.

The works between Hubli and the Portuguese frontier at the 204th mile from Bellary were taken over from Messrs. Thompson & Co., contractors, in June 1884. The progress made during the current working season has been satisfactory, and it is now anticipated that the line will be ready for traffic from Dhárwár to Buralukod (192 miles) by the 1st January 1886 (*see* my Note on question of opening communication with Goa, dated 30th January 1885). The Ghát incline of 1 in 40 commences below the proposed Castle Rock Station at 200½ miles, the junction with the West of India Portuguese Guaranteed Railway being at 204 miles. In this short distance there is some very heavy work still to be done, including the Castle Rock tunnel, 1,242 feet, and the Bear Rock tunnel, 471 feet long, both in treacherous material, and requiring lining from end to end. A working face had been got out at either end of the Castle Rock tunnel, and the headings commenced by the contractors, but heavy slips took place during the monsoon of 1883, and they did not re-commence work afterwards. Since the Company took the work in hand, the heading has been driven about 100 feet from the east end. The formation is of a clayey soil interspersed with boulders. It is possible, but not probable, that rock may be met with further in. No rock has been met with in the case of the Bear Rock tunnel, through which the heading was driven by the late contractors, and where the material met with is much the same. It is proposed in both cases to build the lining of the tunnel with cement concrete blocks, no suitable building stone being easily procurable, and an attempt to make bricks good enough for the purpose having failed. The lining will be carried well beyond the present faces of the tunnels to protect the line from slips of earth from the hill sides above. The clerk of the works in charge, Mr. Barrow, who was taken over from the contractors, has had long experience in tunnel work, and Colonel Lindsay is sending down another European miner from the Poona Ghát tunnels where his supervision is no longer necessary; but as the tunnel work on the Ghâts will have to be carried on day and night at four points, and is such as to require constant

skilled supervision, while the climate during part of the year is unhealthy, he thinks it will be necessary to indent for several more men of the same class. This point will, however, be separately reported upon.

The date named by Mr. Sawyer for completing the lower section of the Ghâts is the 1st January 1888. The work he has to get through is, of course, far greater in respect to quantity than what falls to the Southern Marátha Railway Company, but as all the tunnels on the West of India Portuguese Railway section of the Ghát are in rock, they are none of them so difficult individually as the two upper ones, while the number of labourers that it is possible to employ on any one tunnel is limited. It will not be safe, therefore, to assume that these two tunnels will be completed sooner than the rest. After another season's work the probable date of completion may be more easily predicted.

The following are the stations now sanctioned or proposed between Bellary and the Portuguese Frontier :—

	Mileage from Bellary.
Bellary	0
Kudatani	12½
Gadiganur	24½
Pukanakanhali (proposed)	32
Haspet	40½
Munirabad	44
Kopbal	57
Bunapur	66
Bunnikoppa	72
Harlapur	82
Gadag (Junction)	94
Hulkoti	101
Annigeri	107¼
Dundur	117
Hubli	129¾
Dhárwár	142½
Mugad	151¼
Kambarganvi	158¼
Alnavar	165½
Nagargali	174¼
Londa (Junction)	186¼
Buralukod	192
Castle Rock	200½

It will be desirable, in my opinion, to reckon the mileage of the Southern Marátha Railway system from one common point, which I think ought to be the junction with the West of India Portuguese Guaranteed Railway on the frontier. At present the West Deccan mileage is reckoned from Poona, the East Deccan from Hotgi, and the South Deccan from Bellary, and figures are confusing. The alteration need not be made until the lines approach completion. The Engine Stations will probably be Bellary, Gadag Junction, Hubli, Londa Junction, and Castle Rock, but it has not yet been finally decided how the engine runs shall be arranged. It is not desirable to have drivers residing at Londa Junction, which is unhealthy at certain seasons. Castle Rock will probably be the station at which the heavy locomotives, with which it is proposed to work the West of India Portuguese Guaranteed line and the Ghát incline, will be exchanged for the lighter locomotives of the Southern Marátha Railway. It was at one time proposed to make Deuli the changing station, but as explained in my Note of the 18th January, it is now proposed to abolish Deuli and have Stations at Castle Rock and Buralukod. Another suggestion put forward by the Board of Directors of the Southern Marátha Railway Company is that the West of India Portuguese Guaranteed engines should work as far as Londa Junction, the section between the Ghát and Londa to be laid with 60-lb. steel rails of the Ghát pattern; but as trains will be worked over the Ghát with two locomotives attached, there must, in any case, be accommodation for the auxiliary locomotives at the head of the incline at Castle Rock; and as the gradients between Castle Rock and Londa are not more severe than on other parts of the Southern Marátha Railway, there would be no particular advantage in working this section with the more powerful locomotives of the West of India

Portuguese Guaranteed Railway. Castle Rock will be a healthy station, and it appears to Colonel Lindsay and myself that it may with advantage be made the principal Engine Station, and the chief place of residence for the locomotive staff employed in working the Ghát and the adjacent section of the Southern Marátha Railway.

Mr. Molesworth has pointed out in his Note that it is "desirable to arrive at an early decision respecting the mode of working the Ghâts." The length of the Ghát is about 13 miles with an almost continuous grade of 1 in 40; so far as I am aware, nothing has been settled between the two Railway Companies as to the system of working to be adopted, except the type of the locomotives which are being provided by the West of India Portuguese Guaranteed Railway Company. Mr. Sawyer has recommended the application of the latest form of the Herberlein brake, as used on several mountain lines in Germany and Switzerland, to passenger stock; and Mr. Molesworth supports his recommendation. For the goods stock Mr. Molesworth would, at all events at first, adopt the system of weighted brakes, leaving the question of applying the continuous brake to goods as well as coaching vehicles for future consideration. Mr. Molesworth suggests that it may be desirable to fit up a small proportion of the goods stock with the Herberlein brake at once, in order to ascertain how far continuous brakes can be worked in conjunction with weighted brakes. The engines and tenders used for Ghát working will, I understand, be provided with brakes, but these will be treated as reserve brake power not to be used under ordinary circumstances, but available on emergency.

It is time that these proposals were fully considered; it is not improbable that the form of continuous brake to be adopted will lead to discussions more or less protracted, and it is necessary that a decision should be arrived at within a reasonable time, so that whatever stock has to be fitted with special brakes for Ghát working may be in readiness by the time the line is completed. As the Government of India will probably issue instructions on Mr. Molesworth's Note, I need not further refer to the subject at present.

The sanction of the Government of India having been obtained to the estimates for the Southern extension from Hubli to Ránebennur, and the survey of the line onwards to Harihar, where it will join the projected Mysore Railway, the necessary staff of Engineers will be sent down shortly to commence operations. On the Hubli-Ránebennur section the only work of importance is the bridge over the Vardha, which will be taken in hand as soon as possible. The rest of the work is light, and Colonel Lindsay expects to complete this section by the beginning of 1886. The Tungbhadra, which forms the boundary of the Mysore State, has to be crossed at Harihar, which stands on the right bank of the river. I do not know what prospect there is of the Mysore Railway being extended from its present terminus at Gaddi to the frontier, but the construction of the Tungbhadra bridge and the line to the permanent station at Harihar should not be deferred. Colonel Lindsay is about to visit Harihar, and will shortly report on this point.

East Deccan Line.

The East Deccan Railway was opened for passenger traffic on the 15th September 1884 between Hotgi Junction and Gadag, 173½ miles.

The traffic is at present poor, but it shows signs of improvement; and the line has already been of some use in importing food into Bijápur and Kaládgi, where the crops have failed in places owing to the scanty monsoon rains of 1884.

West of India Portuguese Railway.

Major-General Hancock, R.E., Consulting Engineer for Railways, also marched over the West of India Portuguese Railway in December 1884, and recorded the following observations regarding the communication by road between that line and the Southern Marátha Railway system, as well as on the state of the works on both lines.

As regards the Southern Marátha Railway, the progress made up to date—January 1885—justifies the assumption that the South Deccan will be practically

completed as far as Buralukod, 192 miles from Bellary, by this time next year, and that the section of the West Deccan from Belgaum to Londa Junction will be ready at the same time. Probably the rails will by then be laid as far as Castle Rock, 200½ miles from Bellary, where, after further consideration, it is now proposed to establish the engine changing-station at the head of the Ghát Incline. But Buralukod will be placed near the point where the Tini Ghát main road crosses the railway; and as it is now proposed to dispense with a station at Deuli (198 miles), Buralukod will be the temporary terminus, should it be decided to open this section of the line for traffic before the Ghát itself is completed. Castle Rock Station will be about 4 miles away from this Tini Ghát road, a rough broken country intervening.

As regards the West of India Portuguese Guaranteed Railway which may be conveniently divided into three sections, *viz.*:—

	Miles.
(*a.*)—Frontier to Collem (Ghát Incline)	12½
(*b.*)—Collem to Sanvordem	12
(*c.*)—Sanvordem to Mormugão	26½
Total miles ...	51

Section (*a*), with the exception of the lower 3 miles, cannot be completed before the end of 1887 at earliest. It comprises the heaviest work on the Ghát Incline. It may be assumed that by the time it is finished the Southern Marátha Railway Company will have completed the rest of the Incline from Castle Rock to the Frontier (204 miles from Bellary) on which there are two difficult tunnels.

Section (*b*) Collem to Sanvordem and the lower 3 miles of Section (*a*) will be practically finished by June next. The line is almost ready for the rails.

Section (*c*) Sanvordem to Mormugão, will not be completed before June 1886. There is heavy work in cutting and embankment between the 8th mile and Mormugão, and there are three bridges, *viz.*:—

1	—90 feet span	at 26th mile.
3	do.	at 23½ „
1	do.	at 16th „

which are likely to give trouble and have only been started.

The progress both on the South Deccan and on the West of India Portuguese Guaranteed Lines has been more rapid since the work was done departmentally, and at present the work is being carried on vigorously.

The Harbour Works at Mormugão are also making good progress. It is hoped that, by the end of 1886, large steamers will be able to lie alongside the quay. By the monsoon of 1887, the breakwater will, it is thought, have been carried out to a distance of from 1,200 to 1,500 feet, the total length at present proposed being 1,800 feet.

To summarise the above it may be assumed that—

(1.)—The Southern Marátha Railway may be opened to Buralakod, by	January 1886
(2.)—Ghát Incline, by	„ 1888
(3.)—Foot of Incline to Sanvordem, by	June 1885
(4.)—Sanvordem to Mormugão, by	„ 1886
(5.)—Harbour available for steamers to lie alongside quay, by	January 1887

The Southern Marátha Railway will, therefore, be in a position to carry traffic to the top of the Ghâts by January 1886. But it would clearly not answer to carry traffic thence by road to Collem to be carried by rail only as far as Sanvordem. Until the Railway is open from Sanvordem to Mormugão, *i.e.*, till June 1886, any traffic that the Southern Marátha Railway Company may bring to the top of the Ghâts will, if intended for the coast, have to be carried by the Tini Ghát road to Durbatte Bandar (near Phonda) on the Rachol river, or to Usgaum Bandar on the Panjim River, where it can be put into pattimars.

When the line is completed to Mormugão or by June 1886, the branch road from the foot of the Tini Ghát to Collem, recommended by Captain Olivier in his report of December 1883, will be of some use. But the quay-wall at Mormugão is not likely to be finished so soon; and until steamers can lie alongside, cargo boats must be used for landing and shipping goods; and these boats can only ply intermittently during the monsoon; the small iron jetty, now used for landing materials at Mormugão, could not, without great inconvenience, be used for landing and shipping goods as well; and there is no provision for storing or warehousing goods at Mormugão. I am disposed to think that it will not be found advisable to deal with traffic at Mormugão until steamers can lie alongside the quay, or, at all events, until after the monsoon of 1886.

NATIVE STATES.

Bha'vnagar-Gondal Railway.

Additions to Mileage.—The siding on the Bhávnagar Dock estate, lying between the Railway terminus and the wharf about $\frac{3}{4}$ of a mile in length, was opened for passenger traffic in January 1885.

Increased Accommodation.—Additional goods accommodation has been provided at several stations by lengthening the sidings and extending the goods platforms. A double passenger platform is being constructed at Dholka.

Some extensive additions and alterations of the sidings on the Dock Estate at Bhávnagar have been put in hand.

Jodhpur Railway.

Additions to Mileage.—An extension of 24 miles from Páli to the Luni river was opened for traffic in 1884.

The causeways across the Guia and Luni rivers were opened in February 1885; and a further extension of the Jodhpur line from Luni Station to Jodhpur, 20 miles, was opened in March 1885.

II.—Lines under Survey or Projected.

G. I. P. Railway System.

Dhulia Branch.—A branch line in Khándesh from Chálisgaon to Dhulia (34 miles) has been located, but a revision of this location is under consideration, with the object of obtaining a more direct line. Possibly this will be effected by more closely following the direction of the existing made road.

B. B. & C. I. Railway System.

Godhra to Rutlám.—A line from Godhra to Rutlám was located during the past year by the survey staff of the B. B. & C. I. Railway Company. The alignment runs *viâ* Dohad, Sauda, Thandha, and Rauti to Rutlám.

The gauge to be adopted is not yet finally decided, and a further examination of the country may shew that the gradients could be improved. The estimate as framed works out to Rs. 93,604 per mile for 111$\frac{1}{4}$ miles.

The construction of the line has been deferred, and there is apparently no immediate prospect of its being taken in hand.

Metre gauge connection between the Rájputána-Málwa Railway and the Bhávnagar-Gondal Railway.—The Provincial Survey staff under the Government of Bombay has run a trial survey of a line from Mehsána to Viramgám, and a trial survey of the alternative route from Sidhpur to Wadhwán *viâ* Pátri is in progress.

Some traffic statistics for both routes have been furnished by the district officers, and forwarded to the Baroda Darbár, which has been requested to collect similar information for the Gáekwári territory traversed by each of the two alternative alignments.

A'nand-Pitlád.—Plans and estimates have been prepared by the B. B. & C. I. Railway Company for a line on the 2′ 6″ gauge from A'nand to Pitlád and thence northwards to Sojitra and Dewa-Talpad. The B. B. & C. I. Railway Company urge that this extension should be on the 5′ 6″ gauge, and, provided this gauge is adopted, offer to work it at the same percentage of earnings as the working expenses come to on the main line, *plus* 7½ per cent. per annum on cost of average quantity of rolling stock employed.

An alternative proposal for a line to Pitlád, starting from Vásud and passing by Borsad, is under consideration.

Surat-Bárdoli—5′ 6″ gauge.—Traffic statistics have been obtained from the Civil Officers and the Railway Authorities for the Surat-Bárdoli District, and are under consideration. The distance from Surat to Bárdoli is 17 miles, and the estimate about Rs. 40,000 a mile, allowing for 60 lb. rails and excluding stock.

Mehsána-Vadnagar metre gauge.—A survey of the line from Mehsána to Vadnagar, 20 miles, has been completed by the Rájputána-Málwa Railway staff, and abstract estimates framed of the comparative cost of construction on the 2′ 6″ and on the metre gauge. The estimates are for the 2′ 6″ gauge Rs. 5,50,860 and for the metre gauge Rs. 6,08,770, exclusive of rolling stock.

The project is now under the consideration of the Baroda Darbár, for which the survey was undertaken.

Southern Mara'tha Railway System.

The final location of the southern extension of the Southern Marátha Railway from Hubli to Ránebennur, 67 miles, has been completed, and the land plans, working sections and detailed estimates finished. These have been sanctioned, and work has been commenced.

The further extension from Ránebennur to Harihar on the Mysore Frontier, 13 miles in length, is being located.

Káthiáwár Railways.

Wadhwán-Morvi Steam Tramway.—The scheme for a tramway from Wadhwán to Rájkot has been somewhat modified. It is now decided not to lay the line to Rájkot, but to Morvi *viâ* Vánkáner; and the services of an engineer having been temporarily placed by the Government of Bombay at the disposal of the Thákor Sáheb of Morvi, the survey of the line was commenced last year, and the laying out of material began shortly afterwards. By the end of the official year some 25 miles of the tramway had been laid, and the whole work was being rapidly pushed on to completion, when the threatening aspect of affairs in Affghanistan caused a demand for materials for a light railway to be laid in the Bolan Pass.

In order to meet this demand, the Thákor Sáheb of Morvi at once stopped all work on the tramway and expressed his readiness to place the whole plant and materials at the disposal of Government, an offer which was accepted for 20 miles of road and for the whole of the Rolling Stock.

Junágad Line.—In the earlier part of 1884 the Junágad Darbár revived a former project for connecting Dhoráji with the port of Verával *viâ* Junágad. The State has now determined on entrusting the revision of the project and the construction of this line to the Manager of the Bhávnagar-Gondal Railway; and an arrangement will probably be made to work it, when completed, in connection with that railway. The point of junction will probably be Yetalsar on the Gondal branch.

III.—Mineral Resources.

Mopáni Coal Mine.—The deliveries to the G. I. P. Railway during the year 1884-85 from the mine amounted to 20,053 tons at Rs. 9 per ton.

Warora Coal Mine.—The deliveries to the G. I. P. Railway during the year from this mine amounted to 51,341 tons at Rs. 4½ at the pits mouth.

Umaria Coal Mine.—The deliveries to the G. I. P. Railway during the year from this mine amounted to 513 tons at Rs. 13 per ton at Kutni :—

Particulars regarding Coal for the calendar year 1884.

Railway.	Description and Source.	Consumption.						
		Quantity.	Cost.	Average per ton.	Per Train Mile.		Per Engine Mile.	
					Quantity.	Cost.	Quantity.	Cost.
		Tons.	Rs.	Rs.	Lbs.	As.	Lbs.	As.
G. I. P.	English	108,869	17,94,375	16·48	44·87	4·14	44·35	4·09
	Warora	44,927	4,67,587	7·6				
	Bengal (Umaria) ...	445						
	Mopáni	20,893						
	Total ...	175,134	22,61,962	12·91	44·87	4·14	44·35	4·09
B. B. & C. I. ...	English	40,633	6,64,380	16·35	46·33	5·41	41·81	4·88
Bhávnagar - Gondal Railway ...	Do.	2,990	62,365	20·86	23·11	3·44	22·23	3·31
Southern Marátha Railway ...	Do.	1,013	29,041	28·66	18·05	3·70	17·65	3·61

IV.—Lines open for traffic.

The works in progress on lines open for traffic have been described in Section I.

Accidents.

The following statements show the number of accidents to trains and the total number of persons killed or injured on the Railways open for traffic under the control of the Government of Bombay during the calendar year 1884 as compared with the numbers for the previous year :—

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

Statement showing the Total Number of Persons killed or injured on the Railways open for traffic under the control of the Government of Bombay during 1884 as compared with the number killed or injured during 1883.*

	Passengers.						Railway Servants or Servants of Contractors.						Other Persons.								Total of all Classes.	
	From causes beyond their own control.		From their own misconduct or want of caution.		Total.		From causes beyond their own control.		From their own misconduct or want of caution.		Total.		Whilst passing over Railways at Level-crossings.		Trespassers and Suicides.		Miscellaneous not included in preceding columns.		Total.			
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1883	...	8	1	13	1	21	1	8	41	88	43	96	...	2	17	7	2	6	19	15	63	132
1884	...	1	3	10	3	11	5	4	32	103	37	107	3	2	16	4	9	5	28	11	68	12

* G. I. P., B. B. C. I., Gáekwár's, Southern Marátha and B.-G. Railways.

B.

Abstract of Accidents to Trains during 1884.

G. I. P., B. B. & C. I., Gáekwár's, S. M. and B. G. Railways.	During 1884.							
	No.		Number of Passengers and others.		Number of Servants.		Total of all Classes.	
	1883.	1884.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Collisions between passenger trains or parts of passenger trains	1	1	...	...	...	...	...	...
Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	9	10	...	...	...	...	...	...
Collisions between goods trains or parts of goods trains	20	19	...	...	1	1	1	1
Collisions between light engines	5	...	...	...	...	...	...	...
Passenger trains or parts of passenger trains leaving the rails	10	7	...	...	...	...	...	...
Goods trains or parts of goods trains, engine, &c., leaving the rails	98	79	...	...	...	...	...	...
Trains or engines travelling in the wrong direction through points	1	...	...	...	...	...	...	...
Trains running into stations or sidings at too high a speed	1	...	...	...	...	...	...	...
Trains running over cattle on the line	108	106	...	...	...	...	...	...
Trains running over obstructions on the line	6	2	...	...	...	...	...	...
Trains running through gates at level-crossings	13	13	...	...	...	...	...	...
The bursting of boilers or tubes, &c., of engines	1	2	...	...	...	...	...	...
The failure of machinery, springs, &c., of engines	8	8	...	...	...	...	...	...
„ „ of tyres	...	...	...	...	...	...	...	...
„ „ of wheels	...	...	...	...	...	...	...	...
„ „ of axles	4	1	...	...	...	...	...	...
„ „ of brake apparatus	...	...	...	...	...	...	...	...
„ „ of couplings	3	7	...	...	...	1	...	1
„ „ of tunnels, bridges, viaducts, culverts, &c.	...	...	...	...	...	...	...	...
Broken rails	...	...	...	...	...	...	...	...
The flooding of portions of permanent way	39	20	...	...	...	...	...	...
Slips in cuttings or embankments	16	25	...	...	...	...	...	...
Fire	87	35	...	...	...	...	...	...
Fire at stations or involving injury to bridges or viaducts	9	7	...	1	...	1	...	2
Other accidents	118	100	...	...	1	7	1	7
Total of all Classes	557	442	...	1	2	10	2	11

	1883.	1884.
Miles open	2,051	2,402·19
Train miles	11,099,384	11,161,830·25
Number of passengers	15,367,871	16,916,124·
Train miles per accident	19,927	25,253·
Passengers injured per million	1·36	·06
Do. killed do.	0·06	0·00

The following were some of the more serious accidents that occurred up to the 31st March 1885.

G. I. P. Railway.

On the 8th March 1885, at Kareli No. 61 Down Goods ran into No. 28 Up Goods which had been shunting in the yard but was at a standstill at the time. The guard of No. 61 Down was killed on the spot and another guard was injured as were also both the drivers. The front portion of each train was wrecked. The Driver of the Down Goods train was tried and sentenced to 1 month's imprisonment.

On the 16th March 1885, the carriage shops at Bhusával caught fire. One bay was destroyed and some rolling stock damaged. The origin of the fire is unknown.

On the 23rd of March part of a goods train that was being backed into a dead end siding, broke away, ran down the incline and carried away the buffer stop which was placed near the abutment of the old bridge over the Bukri River. Four wagons and one brake van were precipitated into the bed of the Bukri twenty-five feet below rail level. An Eurasian guard and an Eurasian fireman were killed. The Pilot guard was placed before the Magistrate but the case is not yet decided.

B. B. & C. I. Railway.

On the 29th October 1884 the Engine of No. 16 Up Goods struck with its cow-catcher a bull buffalo that was straying on the line near Sáyan Station, and after dragging the animal along a few yards threw it clear off the line; 13 wagons however were derailed and thrown down the bank. The damage was estimated at Rs. 3,000. No person was injured.

FLOOD DAMAGES.

On the North-East line of the G. I. P. the temporary bridges over the Bukri and Ajanta rivers, which had replaced the permanent structures washed away in 1883, were themselves completely swept away by a heavy flood in July 1884. The permanent bridge in course of construction over the Ajanta was sufficiently advanced at the time to allow rails being laid on it and traffic passed over at a low speed. Across the Bukri, trains had to run over a temporary diversion, which was slightly interrupted at intervals during the monsoon.

On the B. B. & C. I. Railway in September 1884 heavy floods in the Surat District damaged the Railway banks and interrupted the passage of trains in several places near Pánoli, Kim and Kánkra Khári.

The Rájputána line was also damaged about the same time by floods, and through communication interrupted on the Ajmir-Ahmedabad section.

Traffic on the Gáekwár's Railway was also temporarily interrupted.

MISCELLANEOUS.

The following sections of lines were inspected during the year prior to opening for public traffic:—

1. East Deccan Railway from Hotgi Junction to Gadag, 173½ miles.
2. Bhopál State Railway from Hoshungabad to Bhopál, 45¾ miles.
3. Jodhpur State Railway from Páli to Luni 24 miles and subsequently from Luni to Jodhpur, 20 miles.
4. Bhávnagar-Gondal Railway. Sidings about ¾ of a mile long on the Dock estate between the Bhávnagar wharf and the Railway station at the terminus.

The draft Agreement with the G. I. P. Railway Company for the working of the Bhopál State Railway, which was prepared and submitted, towards the close of the last year, for the approval of the Government of India, received the approval of Her Majesty's Secretary of State at the commencement of 1885 and came into force shortly afterwards. A copy of it is entered as Appendix A.

Working agreement with B. B. & C. I. for working over Bombay Lines.—A revised working agreement was entered into between the G. I. P. and the B. B. & C. I. Railway Companies for the through running of traffic and stock over each other's lines in Bombay, to take effect from 1st January 1885.

A copy of it is attached as Appendix B.

Automatic Brakes.

On Thursday, March 5th, 1885, a series of experiments was carried out on the Bhor Ghát Incline, G. I. P. Railway, on a train fitted with automatic vacuum continuous brakes.

The experimental Train was composed of 13 vehicles, averaging 9 tons 13 cwts. each=125 tons 9 cwt., all fitted with Brakes.

DETAILS.

		Tons. cwt.		Tons. cwt.
2	1st Class Carriages at	11 5	each	22 10
2	2nd „ „ „	9 2	„	18 4
7	3rd „ „ „	9 5	„	64 15
2	Brake vans „	10 0	„	20 0
13	Vehicles averaging „	9 13	„	125 9
1	Engine, at 40 tons 0 cwt., of which 26 tons under Brake power			26 0
1	Tender at 20 tons 0 cwt., all under Brake power ...			20 0
	Total Weight under Brake power =			171 0

A second Engine with Tender was attached to the Train but was kept as reserve power if necessary, and was not used to make any of the stops. The Engine and Tender were prevented from dragging on the Train by the Tender Screw Brake.

The Brake power under each carriage was as follows:—

1 Cylinder 1′ 6″ diameter = 254 sqr. inches area.
Deduct for friction ... 30 „ „ „

224 sqr. inches area.

or 2 cwts. for each *lb.* pressure brought to bear on the piston. The above is increased six-fold by levers, and thus equals 12 cwts. for each lb. pressure brought to bear on piston. In practice 9 lbs. of air pressure could be brought to bear on each vehicle of say 200 cwts.

9 lbs. × 12 cwts. =108 cwts. on say 200 cwts. = 54 per cent. of the weight of a vehicle.

For practical purposes say a pressure of 50 per cent. of its weight can be brought to bear on the Brake blocks of each vehicle (or just about what would skid the wheels with very slippery rails and slow speed.)

These experiments were carried out as a convenience with main line Tender Engines, and it should be noted that in all the experiments for controlling the speed of the train the Brake power under these two Engines and Tender was not brought into use. There was therefore in such experiments a reserve power of 8 cylinders to supplement the 13 cylinders under the carriages. Had two Ghát Engines been used the reserve power would have been 4 cylinders.

It should also be noted that the rails were dry and the Brake blocks of cast-iron, except on the 2 Brake vans, where they were of wood.

The cost of fitting stock with this gear is approximately as follows:—

Engines	Rs. 600 each.
Tenders	„ 400 „
Carriages	„ 400 „

1st Experiment on a falling gradient 1 in 40. Train running about 12 miles an hour.

	lbs.
Vacuum per square inch on both sides of piston ...	9
Vacuum on bottom side was lowered to	7½
Air pressure per square inch acting on lower part of piston.	1½

1½ lbs. × 12 cwts. = 18 cwts. acting on a vehicle of 193 cwts. = 9 per cent.

The above under each vehicle kept the train under control.

2nd Experiment on a falling gradient 1 in 37—

Vacuum per square inch on both sides of piston	9
Vacuum on bottom side was lowered to	6
Air pressure per square inch acting on lower part of piston ...	3

3 lbs. × 12 cwts. = 36 cwts. acting on a vehicle of 193 cwts. = 18 per cent.

The above pressure under each vehicle kept the train under control. For a few seconds when running at 16 miles an hour, 54 cwts. were brought to bear on the wheels; this probably was unnecessary, but it is recorded here for the purpose of example.

3rd Experiments.—While running into Khandála on a falling gradient of 1 in 40, the Brake was applied fully and stopped the train in about half its length = 61 yards.

4th Experiment.—The train was brought to a stand on a gradient of 1 in 37 with Brake fully applied. The engines were uncoupled and run a few yards clear of the train, this test being to ascertain for what length of time the Brakes under the carriages would prevent their running forward, as in the case of an ascending train breaking loose without an Engine in the rear.

The train stood for 53 minutes, after which there were only 4 vehicles under Brake power, the other 9 Brakes having leaked off, and the four that remained on must have been under very little pressure when the train ran forward. The train weighed 125 tons 9 cwts. and the weight of the four vehicles that remained under some Brake pressure would be 38 tons. If the air pressure upon the pistons of these 38 tons had remained as when first applied, namely 9 lbs., there would have been a total pressure on the blocks of 108 cwts. × 4 cylinders = 432 cwts. = 21 tons 12 cwts. acting on 38 tons.

With the pressure on the pistons at 3 lbs. per square inch, which is probable, there would have been a pressure on the blocks of 144 cwts.

The Brakes leaked off the above vehicles as follows :—

2	leaked off after standing	21 minutes.
1	,, ,, ,, ,,	23 ,,
2	,, ,, ,, ,,	34 ,,
1	,, ,, ,, ,,	38 ,,
1	,, ,, ,, ,,	42 ,,
2	,, ,, ,, ,,	52 ,,
Total ...	9	

5th Experiment.—With the train standing as in No. 4 Experiment, the weight of two engines and tenders, 120 tons, was added, making the gross weight 245 tons. It was found that an air pressure of 6¼ lbs. acting on the pistons connected with the braked portions of one engine and tender, 46 tons, just held the train, that is, 6¼ lbs. × 12 cwts. × 4 cylinders = 300 cwts.

300 cwts. pressure on 46 tons held 245 tons.
therefore 150 „ „ „ 23 „ „ 122 tons.

This No. 5 Experiment supports the suggestion that in No. 4 Experiment a pressure of 3 lbs. remained on the pistons of the 4 carriages, as it will be seen that about the same pressure on the Brake blocks was required to hold up about the same weight.

6th Experiment.—With the whole train at rest as in the above experiment (No. 5), it was found that with 12 lbs. pressure acting on the 2 cylinders connected with Tender Brake blocks the train could be held in position. 12 lbs. pressure × 12 cwts. per lb. = 144 cwts. ×2 (cylinders) = 288 cwts. and 288 cwt. pressure acting on 28 tons, held 245 tons.

7th Experiment.—On a falling gradient 1 in 40—

Vacuum per square inch on both sides of piston = 9 lbs.
Vacuum on bottom side was never lowered below 5½ lbs.
Air pressure per square inch acting on lower part of piston ... ... 3½ lbs.
3½ lbs. × 12 cwts. = acting on a vehicle of 193 cwts. = 21 per cent.

The above pressure under each vehicle kept the train running pretty uniformly at a speed of 12 miles per hour, a less pressure was required when running round curves, the maximum being used on occasions where the effective pressure having been temporarily lowered to counteract the influence of curves, the train had gained speed on coming to straight line.

8th Experiment.—On a falling gradient 1 in 37—

Vacuum per square inch on both sides of piston ... 9¼ lbs.
Vacuum on the bottom side was lowered to ... 4½ lbs.
Air pressure per square inch acting on lower side of piston ... . 4¾ lbs.
4¾ lbs. × 12 cwts. = 57 cwts. acting on a vehicle of 193 cwts. =29 per cent.

The above, as a maximum pressure, kept the train running pretty uniformly at a speed of 12 miles an hour, and as mentioned in No. 7 Experiment the maximum pressure was only required where speed had gained. As regards the train being controlled by the Brake power under each carriage, it should be noted that with an available power represented in this instance by 9¼ lbs., 4¾ lbs. were required to prevent the train gaining speed, leaving a further amount of 4½ lbs. (if there had been no leakage) available for stopping the train. It should be mentioned that it was towards the end of this experiment that the pressure on the lower side of the Brake pistons had to be reduced as low as 4½ lbs. per square inch, whereas in Experiment No. 2 on the same gradient the lower pressure was only reduced to 6 lbs., giving a real pressure per inch on the piston of 3 lbs.

The explanation of this is, that in No. 8 Experiment the Brakes had been in action for about 15 minutes, and if leakage had reduced the vacuum on the top of the piston from 9¼ lbs. per square inch to 7½ lbs. per square inch this

when reduced as in No. 8 by 4½ lbs. per square inch gives a real pressure on the piston of 3 lbs. per square inch exactly the same as in No. 2 Experiment, leaving 3 lbs. still available besides the Brake power of the engines.

The question as to whether there was any real necessity for so great a pressure being exerted to control the train as is shown in this instance can only be determined by further experiment, probably there was not, and it should also be noted that apart from the reduction of pressure, that is Brake power, as affected by time, time also has another very important effect upon the Brake power, due to the gradual diminution of the coefficient of friction from the moment the blocks act upon the tyres. This for simple stoppages is not of much importance, for the decrease due to length of time of contact is usually compensated by the increase of the coefficient due to the gradually slackening speed; but when descending long inclines, where a reduction of speed is not required, there is no such compensation. It should, however, be noted that in addition to the surplus Brake power on the engine there had been no real necessity for such a prolonged application of the blocks, we might have released them for 15 to 20 seconds and so re-established the maximum friction and vacuum. This loss of friction is a point regarding which some further experiments are necessary, for, although there is good authority for saying that it is considerable during the first few seconds, there must be some time limit to the loss. At present in England it has been found that during the first 20 seconds at 20 miles an hour it amounted to one-half.

The above experiments show that this Automatic Brake has ample power to stop, control, and regulate the speed of all vehicles to which it is applied. The following points in connection with its working should be noted :—

A. The whole Brake power (except what can be exerted on the engine and tender wheels) depends upon the amount of vacuum that has been obtained beforehand, and that exists on the top side of the Brake piston, before the Brake is applied. This may be called the "reserve power."

B. The moment the Brakes are applied, and during the whole period of such continuous application the "reserve power" is very gradually diminished by leakage, and cannot be renewed without releasing the whole of the Brakes. Take the least favourable case, in No. 4 Experiment, it required 21 minutes to leak off the first Brake completely, and the Driver has therefore no guarantee as to the amount of this reserve power, except that it will take, say 20 to 40 minutes to completely exhaust it. That it will never be less than the pressure to which he has reduced it on the lower side of the piston, and in the train pipes as shown on the indicator, and that he has this pressure in reserve, beyond what may at the time be already in application.

C. That a Driver can at any time, and for as long a time as he chooses, exercise the full effect of the Engine and Tender Brakes.

D. If a Driver finds that, owing to leakage, he has an insufficient amount of vacuum (or surplus power), on the top of the pistons, he can always recreate a fresh maximum amount by totally releasing all Brakes for about 15 seconds, during which time he will be creating a fresh vacuum.

The chance of the reserve power having fallen below what is necessary is possible, but not probable. Further experience on this head is wanted, but such a circumstance is barely possible with a competent engineman.

E. With any other trains than those descending the Ghâts, and when the Brakes are applied for a few seconds only, the leakage is practically nothing, and the only mistake that a Driver of such trains can make, would be gross carelessness in not seeing that his gauge showed a proper amount of vacuum in the train pipe.

VII.—To prevent the total failure of Brake power, as instanced as being possible in the previous para., for trains descending the Ghâts, it may be desirable (by some additional fittings) to pin down the Brake levers under some of

the vehicles to a limited extent before allowing them to leave the top of the incline. The amount of this limit will have to be determined with a variation for dry and wet rails. Perhaps about 4 lbs. of actual air pressure on the pistons under every other vehicle would be sufficient. It was shown in Experiment No. 1, that 1½ lbs. pressure would control a train on a gradient of 1 in 50; with a pinned down pressure there should be no risk in a Driver releasing all Brakes (as far as the pins allow him) and creating a fresh vacuum, should he have allowed it to fall too low. With Brakes pinned down, the Driver could, it is believed, control the train by the Engine Brakes alone, only using the Train Brake for stoppages, danger signals, &c., &c.

VIII.—With the experimental train it was noticed that the Brakes were extremely sensitive, that is, the rise and fall of the counter pressure on the lower side of the Brake pistons caused an immediate increase or decrease in the speed of the train. The continual watching of the vacuum gauges and manipulation of the levers would possibly take too much of the Driver's attention. With some of the levers pinned down much of this would be saved, and Drivers would know that whatever may be the difference between the vacuum and counter pressure, the effective pressure on some of the blocks would not fall below the fixed amount.

IX.—The main line experimental engines used on March 5th were fitted with Automatic Brake Cylinders of the same type as those under the carriages. These cylinders were also connected by a separate line of pipes with a small ejector, which, under certain conditions can, without reference to the vacuum pressure in the carriage cylinders, create a full, direct, vacuum on the top of the cylinders of the engine and tender; this is an additional convenience for ordinary main line work, but as it can only be brought into force when the whole available pressure is applied to the carriages, and as there is no vacuum chamber on the cylinders under the engine and tender, their Brakes (as applied through the automatic pipes) only remain on for a few seconds when running under moderate Brake pressure. The consequence is that when running with a slight application of Brake power under the carriages, the engine and tender (as fitted at present) is unbraked.

To remedy this it may be found desirable to make a few alterations on the Ghát engines, doing away with the automatic action upon them and substituting an arrangement by which their Brakes can, at the Driver's option, be applied with moderate pressure for any length of time. The large number of pipes now under the engine are a complication and require considerable attention. On the Ghâts automatic action under the engines is not of importance, for with the Brake worked from the pushing engine no extra strains would be thrown upon its draw bars if the train were to part and apply its Brakes automatically.

V.—Persons Employed.

During the official year the officers present for duty were:—

Controlling Establishment.

Major-General H. F. Hancock, R.E., Consulting Engineer for Railways and Joint Secretary, Railway Department.

Colonel J. Bonus, R.E., Senior Deputy Consulting Engineer for Railways and *Ex-officio* Under Secretary, Railway Department.

Captain M. C. Brackenbury, R.E., Officiating Deputy Consulting Engineer.

Captain H. O. Selby, R.E., Deputy Consulting Engineer for Railways.

Captain H. D. Olivier, R.E., Acting Deputy Consulting Engineer for Railways.

Major W. I. LeBreton, S. C., Examiner of Railway Accounts.

J. Partridge, Esq., Deputy Examiner of Accounts.

Heads of Departments of each Railway.

G. A. Barnett, Esq., C.I.E., Agent.	G. I. P. Railway.
E. V. Jordan, Esq., Auditor.	
Wilson Bell, Esq., Chief Engineer.	
H. Conder, Esq., General Traffic Manager (on furlough).	
E. W. Keily, Esq., Acting General Traffic Manager.	
S. Jackson, Esq., C.I.E., Locomotive Superintendent.	
Lieut.-Colonel F. J. Wise, S. C., Superintendent of Police.	
Major A. B. Portman, S. C., do.	
A. King, Esq., Storekeeper.	
T. W. Wood, Esq., Agent.	B. B. & C. I. Railway.
J. O'Connell, Esq., Chief Auditor and Accountant.	
J. M. Sleater, Esq., Chief Engineer.	
J. R. Duxbury, Esq., Traffic Manager.	
E. B. Carroll, Esq., Locomotive and Carriage Superintendent.	
Lieut.-Colonel W. T. Brown, S. C., Superintendent of Police.	
Major A. B. Portman, S. C., do.	
R. H. Vincent, Esq., do.	
W. J. Holland, Esq., do.	
C. Beard, Esq., Storekeeper.	
Major W. S. S. Bisset, R.E., Manager.	Rájputána-Málwa Railway (amalgamated with B. B. & C. I. Railway on 1st January 1885).
H. Dangerfield, Esq., Officiating do.	
Colonel C. M. Moberley, Deputy Agent and Joint Auditor.	
J. W. Fordham, Esq., Assistant Joint Auditor.	
J. O'Callaghan, Esq., Traffic Manager.	
B. W. Blood, Esq., Superintendent, Way and Works.	
F. M. Gutersloh, Esq., Locomotive Superintendent.	
W. R. S. Jones, Esq., Carriage and Wagon Superintendent.	
T. Wood, Esq., Chief Storekeeper.	
G. M. Stewart, Esq., Agent.	S. M. Railway.
Colonel J. G. Lindsay, R.E., Chief Engineer.	
J. Craik, Esq., Traffic Manager.	
C. P. Whitcombe, Esq., Locomotive Superintendent.	
J. Hutchinson, Esq., Joint Auditor and Examiner of Accounts.	
W. F. O'Donoghue, Esq., do.	
W. Coen, Esq., Storekeeper.	
H. Dangerfield, Esq., Manager and Engineer-in-Chief.	Bhávnagar-Gondal Railway.
Captain R. Gardiner, R.E., Officiating Manager and Engineer-in-Chief.	
C. Carroll, Esq., Traffic Superintendent.	
R. Wylie, Esq., Locomotive Superintendent.	
D. W. McPherson, Esq., Examiner of Accounts.	
A. G. Kemp, Esq., Storekeeper.	

Police.

The annual review of the working of the Police on the G. I. P., B. B. & C. I. and Rájputána-Málwa Railways for the year 1884 has not yet come to hand, and as a similar difficulty occurred last year it appears probable that the Railway Administration Report will have to deal with Police Reports a year old.

The last available reports, those for 1883, are summarised as follows:—

G. I. P. Railway.

Lieut.-Colonel Wise held the office of Superintendent of Police, G. I. P. Railway, throughout the year 1883, except during May, when he was on privilege leave, and Mr. O'Connor, the Senior Inspector, acted for him.

Crime.

There were 341 cases of cognizable crime during the year against 423 in the previous year, a decrease of 34 cases. There was also a decrease of 30 cases in non-cognizable crime, the number for the two years being 92 and 122. In the case of cognizable crime the percentage of convictions to arrests rose from 68 to 73, while in the case of non-cognizable crime it fell from 93 to 90.

Stolen property.

The value of property stolen during the year was Rs. 12,056, an increase of Rs. 5,351 on the amount of the previous year. Of the total amount Rs. 10,826 or 90 per cent. were recovered against 51 per cent. in 1882.

There has therefore been a decrease both in cognizable and non-cognizable crime, while the percentage of convictions to arrests in connection with both species of crime taken together has risen from 74 in 1882 to 79 in 1883. This is satisfactory as also is the large percentage of stolen property recovered, but on the other hand, the increase in property stolen is large.

Serious crime.

Only two serious crimes occurred during the year, *viz.*, a murder in which a policeman was shot by a comrade, and a dacoity committed at the gate house of one of the level crossings between Poona and Kirkee. In the first case the murderer was convicted, and in the second case three of the dacoits were convicted.

In their Resolution No. 8516 of the 14th December 1883, Government drew the attention of the Railway Department to the want of house accommodation for the men of the G. I. P. Railway Police. It is not apparent what steps the Company have taken in the matter and the Railway Department should be requested to inform Government in this Department as to what has been done.

Grain robberies have not been numerous during the year, but it is a species of crime certain to become prevalent in times of scarcity so long as the G. I. P. Railway Company carry grain in open wagons up steep inclines when nothing is easier than the removal of a few sacks by a couple of active men.

At present the class of persons who give most trouble to the Police are the Bhámtás who have adopted as a profession an organized system of theft on Railways. The Superintendent suggests that they should be brought under the Criminal Tribes Act, XXVII. of 1871, but that Act is not in force in this Presidency and cannot without special legislation be extended to it.

B. B. & C. I. Railway.

Lieut-Colonel Brown held the office of Superintendent of Police on the B. B. & C. I. Railway throughout the year, except during June, when Mr. Mánekshaw Dhanjishaw acted for him.

Crime.

There were 240 cases of cognizable crime during the year compared with 250 in 1882, and 130 cases of non-cognizable crime against 123. On the whole, therefore, there were 370 cases of crime in 1883 compared with 374 cases in 1882. In cognizable crime the percentage of convictions to arrests rose from 78 to 79 and in non-cognizable from 88 to 89, the percentage in the case of both cognizable and non-cognizable crime being 83 in the year under review against 82 in the previous year, a result which is satisfactory.

Stolen property.

There has too been a most satisfactory decrease in the value of property stolen, which in 1882 amounted to Rs. 17,030 and in 1883 to only Rs. 3,225. The Police have, however, not been so successful in recovering stolen property, as the percentage recovered in 1882 was 76 while in 1883 it was only 37. Government, however, concur in the remark made by the Commissioner that prevention is even better than detection, and it is to be observed that the amount of stolen property unrecovered in 1882 was greater than the whole amount stolen in 1883.

Only two serious offences occurred during the year—one a dacoity near Bassein Station, the other an attempt to derail a train near the Nowli Station. In neither case was conviction brought home to the offenders.

Serious offences.

Rájputána-Málwa State Railway.

Captain Humfrey held the office of Superintendent of Police during January, February and March and Mr. Mackay acted during the remainder of the year.

There was an increase both in cognizable and non-cognizable crime during the year. Cognizable offences rose from 119 to 157 and non-cognizable from 12 to 18. Crime on the whole, therefore, increased from 131 cases in 1882 to 175 cases in 1883. No reasons are stated for this somewhat serious increase. In cognizable crime the percentage of convictions to arrests was 82, the same as in the previous year, and in non-cognizable crime it rose to 94 in 1883 compared with 80 in 1882. Taking both classes of crime together the percentage of convictions to arrests was 84 in the year under review and 82 in the previous year.

Crime.

The amount of property stolen fell from Rs. 4,666 in 1882 to Rs. 2,707 in 1883, but the percentage recovered also fell from 89 in 1882 to 63 per cent. in 1883.

Stolen property.

No serious crimes occurred during the year under review.

Serious crime.

The following table contrasts the results on the three different lines for the year and also contrasts the results of 1882 with those of 1883 :—

Name of Railway.	Number of miles.	Number of offences.		Percentage of convictions to arrests.		Value of property stolen.		Percentage of stolen property recovered.		Strength of Police.	Cost of Police.	Cost per mile.		Offences per mile, 1883.	Property stolen per mile, 1883.
		1882.	1883.	1882.	1883.	1882.	1883.	1882.	1883.			1882.	1883.		
						Rs.	Rs.				Rs.	Rs.	Rs.		Rs.
G. I. P. Railway	532¼	545	433	74	79	6,705	12,056	51	79	531	1,17,262	199	201	·74	20·69
B. B. & C. I. Railway	520	374	370	82	83	17,030	3,225	76	37	420	84,429	166	162	·71	6·20
Rájputána-Málwa State Railway	111½	131	175	82	84	4,666	2,707	89	63	62	9,003	79	80	1·56	24·27

There has been no change in the mileage of the three Railways nor in the strength of the Police, and there has been scarcely any appreciable change in the cost of the Police.

Compared to the mileage the number of offences committed on the G. I. P. and the B. B. & C. I. Railway is nearly the same, but on the Rájputána-Málwa State Railway crime is twice as prevalent as in the other two, the number of offences per mile on the three Railways being respectively ·74, ·71 and 1·56.

Taking the test of property stolen the results on the B. B. & C. I. Railway are much the most satisfactory, the value of property stolen on that line being only Rs. 6·20 per mile, while on the G. I. P. Railway it is Rs. 20·69 and on the Rájputána-Málwa Railway Rs. 24·27 per mile.

The G. I. P. Railway shows the most satisfactory percentage of stolen property recovered, but then the amount of property stolen was nearly four times as great as on the B. B. & C. I. Railway.

On the whole, however, the results for the year on all three lines are decidedly satisfactory and reflect credit on the Superintendents and the Force generally.

Bhávnagar-Gondal Railway.

For the Bhávnagar-Gondal Railway statistics are available for the year under review and from these it appears that the strength and cost of the Bháv-

nagar-Gondal Railway Police and compensation for theft paid in 1884 are as follows :—

1. Subordinate Officers	17		
2. Constables and men	61		
	Rs.	a.	p.
3. Salaries and fixed allowance of Officers	1,650	0	0
4. Office expenses and travelling allowances ...	2,155	0	0
5. Salaries of subordinate officers and men... ...	9,662	0	0
6. Total cost of force per annum	13,467	0	0
7. Cost of force per mile of Railway	70	0	0
8. Compensation payments due to theft or carelessness of Police	185	0	0
9. Compensation payments per mile of Railway ...	0	15	0
10. Length of Railway open for traffic	193·21 miles.		

The total debit for Police and Magisterial Departments against working expenses in 1884 was Rs. 18,820, or 3·16 per cent. on the total expenditure.

Southern Marátha Railway.

Hotgi to Gadag	173¾
Haspet to Dhárwár ...	101¼
	*274¾

The organisation of the Police Force on the Southern Marátha Railway was carefully considered during the year and the following monthly expenditure has now been sanctioned for 275* miles of line opened or just about to open :—

				Rs.	a.	p.
1	Superintendent of Police ...	...	...	500	0	0
	Travelling allowance ...	...	...	150	0	0
	Office establishment ...	...	...	80	0	0
2	Chief Constables	@ Rs. 80	0 0	160	0	0
	Travelling allowance ...	„ „ 10	0 0	20	0	0
	House-rent	„ „ 7	8 0	15	0	0
2	Kárkuns	„ „ 15	0 0	30	0	0
1	Head Constable, First Class ...	...	...	30	0	0
2	Head Constables, Second Class	@ Rs. 20	0 0	40	0	0
3	„ Third Class	„ „ 15	0 0	45	0	0
7	„ Fourth Class...	„ „ 12	0 0	84	0	0
	Clothing	„ „ 0	8 0	6	8	0
	Hutting	„ „ 1	0 0	13	0	0
15	Constables, First Class ...	„ „ 10	0 0	150	0	0
20	„ Second Class ...	„ „ 9	0 0	180	0	0
37	„ Third Class ...	„ „ 8	0 0	296	0	0
	Clothing	„ „ 0	8 0	36	0	0
	Hutting	„ „ 1	0 0	72	0	0
	Stores, stationery and contingencies	...	...	150	0	0
		Total Rs.	...	2,057	8	0

In addition to the above 23 Constables are employed on the Railway works on the West Deccan line, and 17 were on the unopen line between Dhárwár and the Portuguese frontier, about 60 miles.

The Police arrangements between Bellary and Haspet (40½ miles) are under the Government of Madras.

Schools.

G. I. P. Railway.—The sanction of Government was communicated to the estimate, amounting to Rs. 18,466, for the construction of a new school-house at Igatpuri, to be defrayed partly from Capital and partly from the Fine Fund of the Company.

The work will be put in hand as soon as the necessary land has been acquired.

The G. I. P. Railway Company's schools at Lonávli, Bhusával and Sholápur were inspected by the Educational Department and satisfactory reports submitted.

B. B. & C. I. Railway.—Upon the working of the Rájputána-Málwa Railway being taken over by the B. B. & C. I. Railway, the Board of Directors of the latter Company sanctioned an expenditure of Rs. 1,10,000 for the construction of a Railway Boarding-school at Mount Abu.

Plans and estimates are now before Government for sanction.

The school maintained at Parel by the B. B. & C. I. Railway was visited by the Educational Inspector, whose report was satisfactory.

Churches.

The church at Parel for the employés of the G. I. P. and B. B. & C. I. Railways, the foundation stone of which was laid by His Excellency Sir James Fergusson in January 1884, was completed during the year and was opened with a consecration service at the end of the same year.

The Government has given a grant-in-aid of Rs. 7,000 towards the construction of a new church at Igatpuri for the G. I. P. Railway staff.

Volunteers.

The following table shows the strength of the Volunteers of Railways under the control of the Bombay Government on the 1st March 1885 :—

Statement showing the enrolled strength and the number of efficients in the undermentioned Railway Volunteer Corps on the 1st March 1885.

Corps.	Enrolled strength.	Efficient.				Non-efficients.	Sergeant Instructors, 1st and 2nd Class.	Drill Instructors.	Head-quarters.	Remarks.
		Officers.	Non-Commissioned Officers.	Volunteers.	Total.					
G. I. P. Railway Volunteers ..	1,048	25	106	723	854	194	8 1st Class.	1 3rd Class.	Bombay.	
B. B. & C. I. Railway Volunteers	253	10	34	145	189	64	2 1st Class.	1 3rd Class.	Do.	
Rájputána-Málwa Volunteers ..	636	16	48	477	541	*95	6	1	Ajmere ..	*Includes one entire Company only enrolled in February.
Total ..	1,937	51	188	1,345	1,584	353	16	3		

Statement showing the number of Officers, Non-Commissioned Officers and Volunteers in the undermentioned Corps in India for whom Capitation Allowance has been passed for the year 1884-85.

Corps.	Officers.	Non-Commissioned Officers.	Volunteers.	Station.	Remarks.
G. I. P. Railway Volunteers ...	20	101	824	Bombay Head-quarters.	
B. B. & C. I. Railway Volunteers...	8	16	192	Do.	
Rájputána-Málwa Railway Volunteer Rifle Corps ...	16	48	477	Ajmere.	
Total ...	44	165	1,493		

G. I. P. Railway.—During the cold season the G. I. P. Railway Volunteers held a Camp of Exercise at Igatpuri.

B. B. & C. I. Railway.—The aggregate attendance at the Annual Inspection was 135 against 131 last year.

The Capitation Fund shows a credit of Rs. 3,160 on 31st March 1885, to which will be added the earnings for 1884-85.

The strength of the Band remains the same, namely 22 members.

Medical Arrangements.

There is nothing of note to record.

VI.—Stores.

G. I. P. Railway.—The value of Stores purchased during the calendar year 1884 both in England and India aggregated Rs. 75,39,564. The English material imported in compliance with sanctioned indents amounted to Rs. 63,54,977 and consisted chiefly of the following :—

	Rs.
Permanent Way Materials	14,21,094
Coal	18,64,124
Metal	1,70,223
Station Materials	1,59,044
Rolling Stock Materials	2,00,151
Engines, Locomotive, &c...	21,73,056

The last-mentioned included the cost of 60 engines, as under :—

44 Kitson's heavy goods.
13 do. Bogie passenger
and 3 Stephenson's Bogie.

The local purchases amounted to Rs. 36,51,719 and comprised the following principal items :—

	Rs.
Coal, &c.	8,95,233
Timber	4,74,870
Castor oil	2,08,809
Cocoanut oil	1,70,503
Sleepers	3,26,317
Miscellaneous Departmental Stores	9,77,012

while the value of Stores in transit at the close of the year was reported at Rs. 8,09,253. The effect of the year's operations was a reduction in the amount of Capital locked up in Stores of Rs. 3,40,887. The receipts as particularised above were somewhat greater than those recorded in 1883, but the balance in hand at close of the year was reduced by considerably heavier issues owing chiefly to withdrawals for the erection of locomotive engines during the past year, as will be seen from the following summary :—

		Rs.
Issues for Capital—		
Engineering works	Rs. 5,04,357	
Locomotive do.	Rs. 16,62,431	
		21,66,788
Issues for Revenue purposes ...		... 67,68,284
Do. for Sales, &c.		... 2,59,114

The principal engineering works on which the Capital Stores were utilised were the Wádi Bandar Goods yard, the Ajunta and Bukri bridges, the new Administrative Offices, and the New Crossing Stations on the Nágpur section. The Locomotive and Carriage and Wagon Departments appropriated 70 per cent. of the issues for Revenue purposes, while 24 per cent. more were absorbed on Engineering maintenance. Among the sales may be mentioned that of old and unserviceable stores borne on the books at Rs. 39,642 but which realised only Rs. 18,371. The loss has been duly written off, and the circumstance has tended to clear the Company's Stock ledgers of some headings which did not properly represent the materials on hand. Much more still remains to be done to complete the agreement between the actual and recorded quantities and values, but it is hoped that this consummation may eventually be realised, as the matter is receiving the Agent's personal attention. The balance of stores on hand on 31st December 1884 amounted in value to Rs. 64,96,521, distributed as under :—

	Rs.
In hands of Storekeeper	47,68,675
Do. Locomotive Department	16,76,685
Do. Engineer's do.	51,161

The more important articles in the Company's General Stores Depôt are :—

		Rs.
Permanent Way Materials		13,39,865
Comprising 9,555 tons Steel rails valued at ...	6,19,991	
22,839 Wooden Sleepers	91,605	
79,798 Pot ditto	1,65,518	
and Crossings and Fittings	2,50,988	
Station Materials		2,15,190
Consisting chiefly of—		
1,466 tons Water Pipes held at	1,20,900	
99 Turntables at the reduced value of	18,000	
11 Weigh bridges	12,472	
and 80 tons of shedding	8,434	
Bridge Work and Fittings		2,16,217
The 5 spans originally intended for the Kali Marchan Viaduct forms the principal part of these Stores and are held at	1,69,238	
Fuel		4,73,245
Consisting chiefly of—		
26,552 tons of English Coal at	4,11,000	
and 2,690 tons of Coke	61,370	
Engines, Locomotive, &c., with accessories		7,43,287
8 Kitson's heavy goods Engines were in stock at ...	2,51,176	
14,773 Brass tubes Engine	1,47,160	
886 Tyres	1,19,984	
102 pairs Wheels with axles	81,927	
203 Axles	89,866	
Rolling Stock		5,22,160
Comprising—		
14,408 Steel springs for Carriages and Wagons valued at 4,849 Steel tyres...	1,24,018 1,47,235	
2,020 Wagon axles	87,929	
2,228 Axle boxes...	20,711	
251 Pairs Wheels with axles...	32,146	
139 Sets of Wagon under frames	45,816	
223 tons Bolts and nuts	44,812	
Metals		6,43,945
Under this head is held 6,048 tons of rails and 5,388 tons of fittings and scrap valued at Rs. 2,69,696 and returned by the Engineer's department which will be sold as soon as practicable. Besides large quantities of iron, steel and copper of various sizes and descriptions, there were 20,526 Wagon roof sheets at	1,09,709	
Paints and Colours		1,06,732
The principal item being 292 tons of white lead ...	63,928	

The remainder of the Stock at the close of the year contained nothing else of sufficient importance to be particularised, but the aggregate values of the several classes are summarised below :—

	Rs.
Carriage Fittings and Trimmings	14,439
Telegraph Instruments and Materials	60,266
Tools	75,547
Nails, Rivets, &c.	43,538
Locks, Safes, &c.	7,873
Minerals and Chemicals	7,942
Lamps and Fittings	31,420
Metals applied	24,288
Furniture and fixtures	4,717
Cloth, Clothing, &c.	24,757
Stationery	51,530
Drawing and Surveying Instruments	5,348
Machines	58,586
Scales, Steel yard, &c.	24,600
Oil cans and Zincware, &c.	1,604
Cordage, Ropes, &c.	14,382
Oil, Tallow, &c.	25,170
Leather	14,314
Cleaning Materials	4,381
Timber	9,240
Miscellaneous	1,29,626

The Company's Rolling Stock at the close of the year consisted of 499 Engines, 1,439 Coaching and 7,815 Goods vehicles. 44 Engines were erected and placed on the line, and the 66 more, which are either in Stock or under supply, when erected, will bring up the stock to the sanctioned number. There was no addition to the Vehicle Stock during the year, but 58 fourth Class Carriages were converted into third Class, as the lower class fares had some time since been abolished and no object was served in maintaining two separate sets of vehicles. Fifty high-sided wagons were renewed as rail and timber trucks, and 40 low-sided wagons as Brake Vans to meet requirements in these directions. The last-mentioned are still 20 below the authorised number, and the sanctioned addition of 100 third Class Carriages has yet to be made. In other respects the Company's carrying capabilities have reached the authorised standard. An average of 78 per cent. of the Engine Stock was in running order throughout the year, while 86 and 90 per cent. represented the average number of Carriages and Wagons respectively which were always available for traffic purposes. The following briefly summarises the state of the Company's Rolling Stock as it existed on the last day of the year:—

	Total Stock in the line.		Actual Stock in running order.	
Engines—				
Tank	57		44	
Passenger	111		79	
Goods	331		265	
		499		388
Carriages—				
1st Class	83		72	
2nd Class	150		122	
Composite	73		61	
3rd Class	453		416	
Miscellaneous	179		162	
Brake Vans	501		443	
		1,439		1,276
Goods Wagons...	7,158		6,537	
Cattle trucks	54		44	
Ballast rail and timber trucks	471		449	
Brake vans (inclusive)	37		35	
Miscellaneous	95		90	
		7,815		7,155

B. B. & C. I. Railway.—There was a net reduction of Rs. 1,86,482 during the year in the balance of Stores in hand and in transit the latter having fallen from Rs. 32,79,399 at its commencement to Rs. 30,92,917 at its close. The following is a summary of the Stores transactions of the year:—

	Rs.	Rs.
Balance on 1st January 1884...		32,79,399
Received during the year—		
English Stores...	17,82,112	
Indian do.	13,44,043	
		31,26,155
		64,05,554
Issued during the year —		
Capital Account	10,18,500	
Revenue do.	20,83,848	
Stores sold	2,10,289	
		33,12,637
Balance on 31st December 1884 ...		30,92,917

The following statement exhibits the transactions of the period in respect of the principal items of English Stores dealt with:—

Description of Stores.	Balance in hand on 1st January 1884.		Imported during the Year.		Issued during the Year.		Balance in hand on 31st December 1884.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Bridge work	3,282	4,73,263	1,646	2,04,885	2,342	3,23,691	2,586	3,54,457
Chairs, Inter. C. I.	594	28,308	623	28,735	553	26,652	664	30,391
Coal	....	....	44,315	7,45,382	44,315	7,45,382	....	....
Waggon, Iron work	112	26,731	1,219	3,03,202	1,072	2,61,802	259	68,131
Rail, steel	4,268	2,93,089	1,670	1,19,305	4,642	3,21,284	1,296	91,110
Sleepers, Cast iron	3,245	1,70,954	39	1,697	1,237	65,296	2,047	1,07,355
	No.		No.		No.		No.	
Do. Creosoted	53,762	1,41,837	50,940	1,28,344	49,502	1,34,983	55,200	1,35,198
Locomotive Engines	....	....	5	1,45,835	5	1,45,835	....	....

The transactions connected with the purchase of Indian Stores were as usual confined principally to Timber, Sleepers, Oils of various kinds, and Iron work for the Engineering and Locomotive Departments.

The issues on Capital Account took place mainly in respect of the works enumerated further on in the remarks under "Head VII. Capital Transactions"; while those on Revenue Account were of course principally to the Engineering and Locomotive Departments, and consisted of Permanent Way Materials and Bridge work, and of Fuel, Wagon Ironwork, Timber, Oils &c., required for the up-keep of the way on works, the maintenance and renewal of Rolling Stock and the working of the traffic.

The Store transactions of the year present no features of special interest except that towards its close a large sale by auction of old and useless materials took place which resulted in a loss of Rs. 34,102 as compared with their book values after deduction of auctioneer's commission and incidental expenses. Of this amount Rs. 7,260 was charged to the Profit and Loss on Stores account in respect of articles obtained originally for construction purposes, but which had never been issued from Stock; and the balance of Rs. 26,842 to Working Expenses in appropriate Abstracts of the Revenue Account. Against the debit to Capital as above there was a set-off credit of Rs. 5,881 on account of Stores found in excess at the annual stock-taking, which was effected in October last in a specially thorough manner by a competent staff from the Audit Department under the supervision of the First Assistant Auditor. As regards the debit to Revenue referred to above, no objection was raised to its inclusion in the accounts of a non-surplus period, because the Company had spontaneously charged a larger loss to that head in the accounts of the second half of 1883 which showed a surplus, the losses being thus held to counterbalance each other in regard to their effect on Surplus Profits.

The following is a summary of the Stores in hand and in transit at the close of the year, sub-divided under the prescribed classification :—

	Serviceable.	Obsolete.	Total.
	Rs.	Rs.	Rs.
Engineering Department	14,33,125	...	14,33,125
Locomotive do.	12,33,287	...	12,33,287
Traffic do.	58,422	...	58,422
General Stores	78,902	4,344	83,246
Stores in Transit	2,84,837	...	2,84,837
Total ...	30,88,573	4,344	30,92,917

The Obsolete Stores are thus about 0·14 per cent. of the total value of Stock and they are 50 per cent. less than they were at the close of the preceding year. It may be added that the balance of these Stores has been steadily reduced during the past 3 years, their book value at 31st December 1881 having been Rs. 39,369; and it is understood that the Company are making efforts to still further reduce the comparatively small balance which appeared at the end of 1884.

It must, however, be pointed out that the total balance in hand and in transit at 31st December 1884, *viz.*, Rs. 30,92,917, is still nearly Rs. 9½ lákhs in excess

of the amount of Capital, *viz.*, Rs. 21½ lákhs, provisionally assigned by the Government of India to be locked up on this account, the excess being, more exactly, 43·86 of that limit. Notwithstanding this, the following figures show that there has been, on the whole, a steady reduction of the stores balance during the past 6 years, *viz* :—

	Rs.
Decrease in 1879	... 69,304
„ 1880	... 2,10,735
„ 1881	... 2,84,300
„ 1882	... **1,23,525**
„ 1883	... 1,36,077
„ 1884	... 1,86,482
Net Decrease in 6 years	... 7,63,373

The following figures afford details of the variations in the numbers and descriptions of the Company's Rolling Stock which took place during the year :—

Descriptions.	Stock on 31st December 1884.	Stock on 31st December 1883.	Increase in 1884.	Decrease in 1884.
Engines.				
Tank	11	11	...	...
Passengers	15	15	...	...
Goods and Passengers	29	30	...	1
Goods	48	43	5	...
Total ...	103	99	5	1
Coaching Stock.				
First Class and Saloons	22	22	...	...
Composites	18	18	...	...
Second Class	42	42	...	...
Third Class	240	240	...	...
Mail Vans	3	3	...	...
Carriage Trucks	4	4	...	...
Horse Boxes	15	15	...	...
Brake Vans	18	18	...	...
Road Vans	12	12	...	...
Total ...	374	374	...	...
Goods Stock.				
Open Wagons	1,030	1,131	...	101
Covered do.	1,776	1,593	183	...
Timber Trucks	60	60	...	...
Miscellaneous	24	24	...	...
Brake Vans	45	45	...	...
Total ...	2,935	2,853	183	101
Ballast.				
Ballast Wagons	143	150	...	7
Summary.				
Engines	103	99	4	...
Coaching Stock	374	374	...	...
Goods Stock	2,935	2,853	82	...
Ballast Wagons	143	150	...	7
Grand Total ...	3,555	3,476	86	7

The Engine Stock authorised up to the close of the year was 123, so that the Company have still to construct 20, and these will be of the goods class. They have also authority to construct a total number of 418 vehicles under Coaching Stock, or 44 in excess of the numbers on the list at the close of the year. These will consist of the following :—

Saloon Carriages	3
First Class „	2
Third „ „ with compartments...	27
do. „ „ „ brake	4
Brake Vans	6
Road Vans	2
Total	44

As regards goods vehicles the total stock authorized was 3,368 of all kinds, against which 2,935 are shown to have been on the list at the end of the year. This leaves a difference of 433 vehicles still to be built and they will be of the following types :—

Low-sided Wagons 16 feet	7 in excess
Covered *Z* Wagons 18 „	425
Brake Vans	15
Total	433

Of the Engines, Carriages and Wagons on the list throughout the year an average of 84, 90 and 94 per cent. respectively were in running order.

Southern Marátha Railway.—The debits and credits during the calendar year 1884 relating to Stores in hand, and in Transit from England, aggregated Rs. 1,76,48,703 and Rs. 1,77,39,023, respectively, resulting in a decrease of Rs. 90,320, the opening and closing balances of the year being Rs. 27,88,741 and Rs. 26,98,421 as shown in the following table :—

	Debits (1884.)	Credits (1884.)	Difference.	Balance at end of December 1883	Balance at end of December 1884.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Stores	1,11,89,790	1,07,28,636	4,61,154	13,75,376	18,36,530	4,61,154
London Stores	32,52,392	38,45,960	Cr. 5,93,568	13,09,575	7,16,007	Cr. 5,93,568
London Invoices ...	32,06,521	31,64,427	42,094	1,03,790	1,45,884	42,094
Total ...	1,76,48,703	17,73,90,213	Cr. 90,320	27,88,741	20,98,421	Cr. 90,320

The principal items of Stores comprising the balance in the magazine were :—

	Rs.
Bridge Materials	2,60,000
Rails	9,90,000
Steel Sleepers	
Station Materials	1,50,000
Engines	3,00,000
Carriage and Wagon Stock	
Miscellaneous	1,36,530

The equivalent value in Indian currency of payments in England during the year on account of Stores amounted to Rs. 34,61,783, the Stores consisting chiefly of Rolling Stock, and Permanent Way Materials, and Girders.

The Company's Rolling Stock on Line at the close of the year consisted of :—

31. Locomotives.
76. Coaching Stock.
579. Wagon stock, detailed below :

Locomotives.

A. Class	4
F. „	7
O. „	20
Total ...	31

Coaching Stock.

First Class	... 4
Composite First and Second Class ...	 4
Third Class	... 50
Brake Vans	... 18
Total	... 76

Rolling Stock.

Covered Goods	... 180
Low sided...	... 342
Platform Wagons	... 22
Iron under-frames	... 13
Travelling Cranes	... 2
Ballast Wagons	... 20
Total	... 579

Bhávnagar-Gondal State Railway.—The balance of this account on 31st December 1884 was Rs. 2,72,756, and at close of 1884-85 will probably be Rs. 2,59,070, of which Rs. 2,46,200 would represent Stores; the large items of balance being:—

Coal	... Rs. 28,000
Duplicate gear...	... „ 20,800
Station Materials and Fencing ...	... „ 15,600
Permanent Way	... „ 51,500
Bridge Materials	... „ 14,000
Engineering Plant	... „ 32,000
Iron Works, Coaching and Goods Stock	... „ 28,500
Tools and Miscellaneous Stores ...	... „ 55,800

Between June and November the whole of the Magazine Stock was verified, and the following sums due to differences found were adjusted in the accounts of the year :—

	Rs. a. p.	Rs. a. p.
Verification	4,141 9 5	
Rate adjustment	107 14 3	
Magazine labour	611 6 11	
		3,638 0 9

VII.—Capital Transactions.

G. I. P. Railway.—The state of the Company's Capital at close of 1884 is summarised below :—

	£.	Rs.
Capital authorised	26,666,666	29,09,09,084
Capital subscribed	24,201,664	26,40,18,158
Capital Expended—		
(*a*). Final heads	23,506,405	25,64,32,506
(*b*). Suspense	664,543	72,49,562
Balance available of—		
Capital authorised	2,495,718	2,72,26,016
Capital subscribed...	30,716	3,35,085
Amount expended on Way and Works ...	19,914,192	21,72,45,733
Do. Rolling Stock	3,592,213	3,91,87,773
Cost of Way and Works per mile* ...	15,458	1,68,636
Do. Rolling Stock do. * ...	2,788	30,419

* Exclusive of State Lines.

The amount of the Company's guaranteed Capital was increased during the past year by £495,900. This resulted from the issue of a new debenture loan of £816,400 bearing interest at 3½ per cent., of which, however, £320,500 were in replacement of pre-existing 4 per cents., which had matured and were either paid off or merged into the new loan. The actual sum subscribed in respect of the above-mentioned issue, was Rs. 77,32,838 being the equivalent at the contract rate of exchange of £ 7,14,200 placed at a discount of ¾ per cent. Following established precedents the Company's representatives in India agreed, after discussion, to treat the charges for Commission and stamp duty pertaining to the renewed debenture bonds as debitable to Revenue, and a sum of Rs. 10,207 was so adjusted in the accounts for the first half of 1884, but this was subsequently disallowed by the Secretary of State on a representation by the Board of Directors; and the amount was written back to debit of Capital in the accounts for the second half of the year.

The subscription of this additional Capital covered the overdraft that existed at commencement of the year, but a claim for interest thereon lay against the Company for the month of January 1884, and was met in the deduction of Rs. 14,911 from the divisible balance of surplus profits declared at 30th June 1884.

The Guaranteed Interest for the year amounted to Rs. 1,26,45,335 of which Rs. 1,26,12,261 was paid in England and Rs. 33,074 in India. The subscribed Capital bearing interest having amounted to £ 24,130,250 (or Rs. 26,32,39,091) the above sum paid on account of Guaranteed Interest averages 4·80 per cent.

The following are the details of the Interest bearing Capital at the close of the year:—

	£
Stock and Shares at 5 per cent	20,000,000
Debenture Stock at 4 per cent	2,701,450
Do. at 4 per cent	608,300
Do. at 3½ per cent	820,500
Total ...	24,130,250

While £ 71,414 of Capital not bearing interest had also been paid to Government on the above date.

The net amount withdrawn from treasuries during the year was Rs. 27,38,900 made up of net advances to the Company in England of Rs. 59,06,190 reduced by net refunds to Government in India of Rs. 31,67,290. The above net withdrawal in both countries was applied as follows:—

	Rs.
Increase in the Dr. balance of the Construction Accounts.	29,40,303
Less—	
Decrease do. Stores Suspense Accounts ...	3,40,887
	25,99,416
Add—	
Decrease in the Cr. balance of Suspense Accounts ...	1,39,484
Net withdrawals during the year ...	27,38,900

The net amount charged to the Construction Account during the year, *viz.*, Rs. 29,40,303 was incurred principally as follows:—

	First half.	Second half.	Total.
	Rs.	Rs.	Rs.
Stations and Buildings	6,78,114	2,58,045	9,36,159
Way and Works	2,16,251	42,011	2,58,262
Rolling Stock and Machinery	4,35,022	12,30,384	16,65,406

The bulk of the expenditure against the first head was booked in connection with the Company's new General Offices at Bori Bandar which are approaching completion ; while against the last, 48 new engines were placed on the line.

The decrease in the balance of the Stores Account has already been dealt with under head "No. V Stores" of this Report. The credit balance of Suspense Accounts is due to expenditure charged against Stores actually received into stock at close of the year but not then paid for.

Dhond and Manmád State Railway—The following figures show the state of the Capital Account of the line as it stood at the close of the year 1884 :—

	Rs.
Expenditure on Final heads	1,02,27,016
Do. on Suspense Account ...	38,141
Total ...	1,02,65,157
Deduct—Receipts on Capital Account ...	15,719
Balance ...	1,02,49,438
Deduct—Expenditure in England ...	43,15,967
Net Indian Outlay ...	59,33,471

The expenditure on this account incurred during the calendar year 1884 was recorded at Rs. 1,84,681-5-8 distributed as under :—

	Rs.	a.	p.
English Outlay	85,730	2	8
Indian Outlay	98,951	3	0
	1,84,681	5	8

The Indian outlay of Rs. 98,951-3-0 was incurred by—

	Rs.	a.	p.
Civil Department, Bombay	57,078	12	2
G. I. P. Railway Company	41,872	6	10
	98,951	3	0

The subjoined table shows the detail of expenditure during the year :—

Particulars.	Outlay during 1884.	Total.
Land.	Rs. a. p.	Rs. a. p.
Compensation for land	57,078 12 2	57,078 12 2
Construction of Line.		
Protective Works, Bhima Embankment	3,966 9 0	
Level Crossings, &c.	10,258 3 0	
Fencing	86,167 11 6	
		1,00,392 7 6
Ballast and Permanent Way.		
Permanent Way...	—215 10 4	—215 10 4
Carried over ...	.....	1,57,255 9 4

Particulars.	Outlay during 1884.	Total.
	Rs. a. p.	Rs. a. p.
Brought over ...	.....	1,57,255 9 4
Stations and Buildings.		
Enclosure Wall to Ahmednagar Station... , ..	4,774 14 0	
Latrines for native employés at Ahmednagar ...	657 9 6	
Roads within Station Limits	3,482 6 0	
Engine-shed at Vámbori	—400 0 0	
		8,514 13 6
Establishment	212 0 0	
		212 0 0
Expenditure on Final heads ...	.....	1,65,982 6 10
Suspense Account.		
Stores	18,698 14 10	
		18,698 14 10
Total ...	.....	1,84,681 5 8
Deduct—Debits to Indian books, &c.	85,730 2 8	85,730 2 8
Net Indian Outlay ...	.....	98,951 3 0

The debit on account of land is on account of a large amount paid to the Chief of Vinchúr for compensation for land, &c. The claim was for a long time under litigation and was finally decided by the High Court at Bombay against Government and the amount was paid by the Civil Department, Bombay, during the year under review.

The expenditure on other works was incurred by the G. I. P. Railway Company through whose agency they were carried out.

The small debit of Rs. 212 on account of establishments, represents the share of the Secretary of State's general charges in connection with supply of English stores for Indian State Railways.

The debit of Rs. 18,698-14-10 to suspense is on account of the value of unutilized fencing material debited to this head, which will be relieved in due course as the material is used up by the Railway Company.

The fencing material for 60 miles has been placed on the line and the work of erection is nearly completed.

Berár State Railways.—No Capital works were executed on these Lines during the year 1884. The transactions for that period represent a credit expenditure on the Khámgaon State Railway of Rs. 93-2-5 and on the Amráoti State Railway of Rs. 86-11-0 being the value of Stores purchased by the G. I. P. Railway Company for their own purposes.

The total Capital Expenditure of these Lines stood on 31st December 1884 as under :—

	Rs.
Khámgaon State Railway	4,90,903
Amráoti State Railway	4,44,774

The value of Stores in hand at close of 1884 is as under :—

	Rs.
Khámgaon State Railway	8,333
Amraoti State Railway	10,108

B. B. & C. I. Railway.—The state of the subscribed Capital of the Company on the 31st December 1884 compares with that existing at the close of the previous year, as follows:—

	31st December 1883.	31st December 1884.	Increase or Decrease during 1884.
	£	£	£
Capital bearing Interest—			
Stock and Shares at 5 per cent.	7,550,300	7,550,300	.....
Debentures at 4 per cent.	375,000	Nil	—375,000
Do. at 3½ per cent.	100,000	188,500	+88,500
	8,025,300	7,738,800	—286,500
Capital not bearing Interest—			
Premia on Bonds and Shares... ...	27,553	27,553	.....
Recoveries on account of materials lost at sea.	7,896	8,467	+571
	8,060,749	7,774,820	—285,929
Less—			
Discount on Debentures	3,750	3,750	.....
Total Capital paid into Treasury... ...	8,056,999	7,771,070	—285,929

The amount of Capital withdrawn from Government and applied to works and the purchase of Stores, &c., was, at the close of the year, £8,274,142, as against £7,771,070 subscribed as above. The overdraft standing at debit of the Company was therefore £503,072, interest on which will be calculated and dealt with, under the rules, during 1885. During the year under notice the Capital account of the Company with Government was similarly overdrawn at the close of each month, and a sum of Rs. 1,26,542 accrued thereon as interest. Of this amount Rs. 29,958 appertained to the first, and Rs. 96,584 to the second, half of the period. The former sum was deducted from surplus profits before division of the latter with the Company, but the latter having arisen in respect of a period during which there was no surplus revenue, was merely adjusted in the books of the Government Examiner of Railway Accounts, by credit to the Civil Department, under standing orders.

The main features of the Capital Account at 31st December 1884 are summarised, in the usual form, below:—

	£	Rs.
Capital Authorised	9,475,000	10,33,63,636
Capital Subscribed	7,771,070	8,47,75,312
Capital Expended—		
On Construction Account	8,019,754	8,74,88,220
On Stores Account	283,517	30,92,917
On Suspense Accounts	—29,127	—3,17,756
Total ...	8,274,144	9,02,63,381
Balance available of—		
Capital Authorised	1,200,856	1,31,00,255
Capital Subscribed	—503,074	—54,88,069
Expenditure on Way and Works	7,787,091	7,40,40,989
Do. Rolling Stock	1,232,663	1,34,47,231
Cost of Way and Works per mile	14,787	1,61,309
Do. Rolling Stock Do.	2,685	29,297

The outlay on Construction Account during the year amounted to Rs. 14,96,263 and was incurred principally on the following works:—

	First half.	Second half.	Total.
	Rs.	Rs.	Rs.
Reconstructing North Purna Bridge	34,327	9,064	43,391
Raising South Purna Bridge	18,269	2,493	20,762
Reconstructing Khankra Khadi Bridge... ...	37,598	8,889	46,487
Strengthening Tápti Bridge	51,223	9,357	60,580
Strengthening Bassein Bridges	78,779	1,09,177	1,87,956
Ballast and Permanent Way—			
Ballasting	44,975	14,326	59,301
Permanent Way	1,76,797	28,990	2,05,787
Mody Bay Terminus	1,06,972	1,71,565	2,78,537
Dádar New Station	16,885	5,491	22,376
Mahálakshmi New Station	24,628	8,613	33,241
Rolling Stock—			
Locomotives	.....	1,47,905	1,47,905
Carriages and Waggons	90,198	1,74,300	2,64,498

Much of the amounts shown above against Ballasting and Permanent Way was on account of 20·28 miles of double line, beyond Andheri and near Surat and Ahmedabad, which were in progress during the year; while the outlay on Rolling Stock included the erection of 5 new Engines and 75 Covered goods Waggons, all of which were placed on the line within the period.

The Guaranteed Interest for the year amounted to Rs. 43,20,164, which calculated on £7,738,800 (Rs. 8,44,23,272) of Subscribed Capital bearing interest at its close, gives an average of 5·12 per cent. paid to shareholders, but this rate is artificially higher than it really was, in consequence of the above amount of Capital having been reduced by a sum of £375,000 of 4 per cent. Debentures paid off at the end of the year, while the Guaranteed interest thereon was due for the whole period. The maximum rate of interest paid was 5 per cent., *viz.*, on Stock and Shares. Of the above amount of Guaranteed Interest Rs. 43,16,915 was paid in England and Rs. 3,249 in India.

Southern Marátha Railway.—The Company's Capital at the close of December 1884 stood as under :—

	£.	Rs.
Capital Authorized	5,000,000	6,00,00,000
Capital Subscribed	3,585,420	4,30,25,040
Capital Expended—		
(*a*) Final Heads	1,752,170	2,10,26,040
(*b*) Suspense	304,266	36,51,192
Total ...	2,056,436	2,46,77,232
Balance available of—		
Capital Authorized	2,943,564	3,53,22,768
Capital Subscribed	1,528,984	1,83,47,808
Amount expended on—		
Way and works*	1,480,879	1,77,70,548
Rolling Stock	75,126	9,01,512

* Exclusively of Establishment, Plant and Suspense.

Cost of Way and Works per mile	27,297	Including miles open to Traffic and under construction.
Do. Rolling Stock	1,385	

The gross additional Capital subscribed and paid to Government during the year, amounted to Rs. 2,23,03,440.* Under the authority of the Secretary of State the Company's Capital was increased by the creation of £2,000,000 debentures bearing interest at 3½ per cent. per annum.

*England ... Rs. 2,22,64,440
India ... ,, 39,000

Of this amount £1,700,000 equivalent at 1*s.* 8*d.* per rupee to Rs. 2,04,00,000 was subscribed and paid to the Secretary of State in England in May 1884, and is redeemable as under :—

£ 14,45,000 on 1st October 1891.
£ 2,55,000 on 1st October 1894.

The Capital paid in India in 1884 amounted to Rs. 39,000.

Bhávnagar-Gondal State Railway.—The total Capital outlay, including Suspense, on the Bhávnagar-Gondal Railway to the 31st December 1884 amounted to Rs. 92,92,040.

The total Capital expended on open line, excluding Suspense, was Rs. 90,19,283, giving an average cost per open mile of Rs. 46,681.

The Capital grant, as passed in Budget orders for the year, was Rs. 3,00,000.

During the year the following additions were sanctioned:—

Government of India, No. 456 R.A., dated 30th July 1884, ... „ 80,746.
Do. do. No. 706 R.A., dated 8th December 1884. „ 23,547.

The final allotment for the year, as proposed in the revised estimate, is ... ... „ 4,04,293.

The Capital outlay for the year, it is anticipated, will be ... „ 1,94,300.

The grant, as passed in the Budget for 1885-86, is Rs. 3,75,000, and a programme of works working to that sum has been approved.

VIII.—Revenue Transactions.

G. I. P. Railway.—The result of the past year's working was less favourable than that for 1883. There was a falling off in the Company's gross receipts of about 4 per cent., while at the same time there was a slight increase in the cost of working as exhibited in the following table:—

	1884.	1883.	Increase in 1884.	Decrease in 1884.
	Rs.	Rs.	Rs.	Rs.
Gross earnings	3,36,56,544	3,51,14,365	.....	14,57,821
Gross expenses	1,76,04,234	1,74,54,711	1,49,523	.....
Net earnings...	1,60,52,310	1,76,59,654	.....	16,07,344

The declension in the Company's income began in the early part of the year and continued to the end of the second quarter when a gradual improvement took place, which however was not sufficient to cover the decrease that had been reported. The improvement has been steadily maintained to date and the prospects for the year now current are decidedly more favourable. The general results of the year under review are further indicated in the subjoined table:—

	1884.	1883.	Increase in 1884.	Decrease in 1884.
Percentage of expenses to earnings ...	52·3	49·7	2·6	...
Tonnage of goods handled (paying weight).	17,03,961	17,35,195	...	31,234
Number of passengers carried ...	79,47,744	69,12,999	10,34,745	...
Train mileage worked (excluding light running).	78,16,536	79,23,012	...	1,06,476
	Rs.	Rs.	Rs.	Rs.
Net earnings per train mile	2·05	2·23	...	0·18
Net earnings per mile open	12,461	13,708	...	1,247

In the first half of the year the net earnings exceeded the guaranteed interest by Rs. 50,74,771, but in the second half they fell short by Rs. 16,67,796. The net financial result of the year's operations was thus a surplus of Rs. 34,06,975. Of this Rs. 24,75,671 represented the amount payable to the Company as their moiety of surplus profits, subject to the recovery of outstandings, Rs. 1,08,517 was the contribution to the Railway employés' Provident Fund, and Rs. 14,911 the interest due to Government on capital overdrafts; the residue, *viz.*, Rs. 8,07,876, may be regarded as the direct gain to the State during the past year in virtue of its guarantee.

The working expenses, as already shown, exceeded those for the previous year by Rs. 1,49,523. The following statement shows the variations in the figures for the two periods:—

	First Half.		Second Half.		Total.	
	Increase in 1884.	Decrease in 1884.	Increase in 1884.	Decrease in 1884.	Increase in 1884.	Decrease in 1884.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Maintenance of Way, Works, &c.	57,961	...	1,32,772	...	1,90,733	...
Locomotive Expenses	1,12,029	...	93,517	...	2,05,546	...
Carriage and Wagon Expenses...	...	2,33,190	81,885	...	...	1,51,305
Traffic Expenses...	...	78,877	38,249	...	...	40,628
General Charges...	9,850	...	2,731	...	12,581	...
Special and Miscellaneous Expenses	...	78,299	10,895	..	...	67,404
Total ...	1,79,840	3,90,366	3,60,049	....	4,08,860	2,59,337
				Net Increase ...	1,49,523	...

From the above it will be seen that the increase in working expenses has occurred principally in the Engineering and Locomotive Departments.

The maintenance expenses for the year amounted to Rs. 44,87,345 or 25 per cent. of the total working cost. There was a reduction in the supervision charges which arose from the absence on leave and subsequent demise of two of the Company's engineers during the year. The increased outlay on maintenance and renewal of Permanent Way resulted from a more liberal provision in the estimates sanctioned for the year. Under repairs of Bridges was included in both periods part of the expenditure incurred in reconstructing the Bukri and Ajanta bridges which had been washed away in 1882, and were the scene of further floods in 1883. There was a decrease under "Repairs of Stations and Buildings" due partly to certain re-adjustments of expenditure and partly to smaller outlay on special works outside the limits of ordinary maintenance. It may here be remarked that the estimated renewals of permanent way during the year were fully carried out, and the efficiency of the road properly maintained.

The Locomotive expenses amounted to Rs. 66,70,651, or 38 per cent. of the entire outlay for the year. A reduction occurred under "General Superintendence" chiefly in office expenses. The aggregate charges under the several heads directly affected by the traffic did not vary much from those recorded for 1883. The average price of coal of all descriptions rose from Rs. 12-11-4 to Rs. 12-13-11 in the period under report, while the proportion of English to the total quantity of coal consumed during the past two years was 57 and 63 per cent. respectively. The principal increase in the Locomotive expenditure was reported under "Maintenance and Renewals of Engines, &c.", and arose from the renewal of two more engines during the past year than in that preceding, and from more extensive engine repairs.

The Carriage and Wagon expenses were returned at Rs. 23,37,263 being 13 per cent. of the revenue expenditure, and Rs. 1,51,305 below those for the year preceding. This reduction was due primarily to the smaller outturn of renewals during the past year as well as to less work having been done in respect of Carriage and Wagon repairs. The programme of work agreed upon for the period under report was carried out sufficiently to ensure the proper up-keep of the Company's Rolling Stock.

The traffic expenses were recorded at Rs. 23,35,132 or Rs. 40,629 less than in 1883. The comparative decline in business during the past year as indicated to some extent by the decrease of 31,234 tons on the paying weight lifted, and 106,476 in the traffic train mileage, resulted in a concurrent reduction in the cost of working. The net decrease in the charges against the heads directly concerned with the traffic working was Rs. 55,965.

The general charges amounted to Rs. 11,38,484 being slightly in excess of the expenditure booked in the previous year. The bulk of the increase arose

from variations in the charges for Auditor and Accountant's office due to staff changes and increments of salaries. There was also an increase under "Electric Telegraph" in the wages of signallers, the previously existing staff having proved inadequate. These increases were partially counteracted by a reduction under "Police" consequent on the writeback of certain overpayments that had been made for Police contingencies to the Central Provinces Administration.

The special and miscellaneous expenditure amounted to Rs. 3,77,160, or Rs. 57,221 less than in 1883. This is attributable to the reduction in the charges for mileage and demurrage of foreign stock resulting from the smaller interchange of stock with foreign Lines. The above expenditure includes the commission, &c., on renewed debentures, as appearing in the printed accounts, but which was re-adjusted to Capital account by the Company's Board as explained in the remarks on the "Capital Transactions." The only important increase in the charges occurred under "Rates and Taxes" and was due to the inclusion in the past year's accounts of arrears of Municipal assessment of the Company's land and property in Bombay. These charges had been in dispute and were settled by arbitration.

The following table, similar to the one above given for working expenses, shows the variations in the receipts from the principal sources of income :—

	First Half.		Second Half.		Total.	
	Increase in 1884.	Decrease in 1884.	Increase in 1884.	Decrease in 1884.	Increase in 1884.	Decrease in 1884.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching Traffic ...	3,11,322	...	2,71,101	...	5,82,423	...
Goods Traffic	...	20,80,160	1,15,789	...	...	19,64,371
Electric Telegraph Earnings.	...	1,083	...	1,207	...	2,290
Sundries	...	76,456	2,873	...	...	73,583
Total ...	3,11,322	21,57,699	3,89,763	1,207	5,82,423	20,40,244
Net Decrease ...					...	14,57,821

The Coaching Traffic is seen to have improved considerably during the year, but part of this improvement must be set down to the abnormal accession of low class passenger traffic to the Násik fair which is held once in twelve years. The falling off in the Goods Traffic, however, neutralises the improvement under Coaching. The various fluctuations in the figures for the two periods under comparison will be dealt with under the succeeding head of the report.

Dhond and Manmád State Railway.—The result of working for the calendar year 1884 under the management of the G. I. P. Railway Company is contrasted with that for 1883 in the subjoined statement :—

Particulars.	1884.	1883.	Increase in 1884.	Decrease in 1884.
	Rs.	Rs.	Rs.	Rs.
Gross Earnings	8,77,100	8,22,833	54,267	...
Working Expenses	6,73,315	6,30,694	42,621	...
Net earnings ...	2,03,785	1,92,139	11,646	...

From the above it will be seen that the net earnings for 1884 have improved by Rs. 11,646.

The following table compares the gross earnings of 1884 with those realized in 1883 :—

Main Heads.	1884.	1883.	Increase in 1884.	Decrease in 1884.
	Rs.	Rs.	Rs.	Rs.
Coaching Traffic	4,15,289	4,10,787	4,502	...
Goods Traffic	4,58,897	4,08,281	50,616	...
Electric Telegraph Earnings	1,611	1,310	301	...
Sundry Earnings	1,303	2,455	...	1,152
Total ...	8,77,100	8,22,833	55,419	1,152
Net Increase ...	...	...	54,267	...

The causes of these increases cannot be given as the necessary information is not supplied by the Company under the working agreement, but it is satisfactory to note that the increased earnings as shown above have been obtained, notwithstanding a decline in the receipts of the Company's own undertaking for the year. The decrease of Rs. 1,152 under Sundry Receipts is due to a sum of Rs. 1,173 on account of sale proceeds of old records, &c., having been credited to this head in 1883.

The total working expenses for the year amounted to Rs. 6,73,315 against Rs. 6,30,694 in 1883 showing an increase of Rs. 42,621. They are calculated on the sliding scale of percentages on gross earnings provided for in the working agreement and are not therefore susceptible of any further explanation. But it may be remarked that the working expenses include, in addition to the amount paid to the Railway Company, Rs. 6,232 paid to the Government Telegraph Department for interest on Capital Cost of the Telegraph Line, and Rs. 487 for proportionate part of the losses on English Stores despatched by sea for State Railways in 1883-84.

Berár State Railways.—These Lines continued to be worked by the G. I. P. Railway Company as a part of their own undertaking. The results of the past calendar year's working are not so satisfactory as those for 1883. The net earnings for 1884 yielded a return of 2·66 and 7·68 per cent. per annum on the Capital Cost of Rs. 4,90,903 and Rs. 4,44,774 respectively on the Khámgaon and Amráoti State Railways against 4·57 and 9·98 per cent. respectively for 1883.

The gross earnings and working expenses of the year under report are exhibited in the subjoined table :—

Railway.	Gross Earnings.	Working Expenses.	Net Earnings.
	Rs.	Rs.	Rs.
Khámgaon...	46,831	33,794	13,037
Amráoti	76,782	42,608	34,174

The above Gross Earnings were derived from the following sources :—

Main heads of Receipts.	Khámgaon.	Amráoti.
	Rs.	Rs.
Coaching Traffic	7,105	14,770
Goods Traffic	39,411	61,767
Electric Telegraph Earnings	81	82
Sundries	234	163
Total ...	46,831	76,782

The foregoing figures are compared with those for 1883 in the following statement :—

Heads.	Khámgaon.		Amráoti.	
	1884.	1883.	1884.	1883.
	Rs.	Rs.	Rs.	Rs.
Coaching Traffic	7,105	7,153	14,770	13,962
Goods Traffic	39,411	55,084	61,767	81,939
Electric Telegraph Earnings	81	201	82	232
Sundries	234	219	163	27
Total ...	46,831	62,657	76,782	96,160

The causes for the falling off cannot be given with any certainty as the necessary information is not furnished by the Company under the working agreement, but it may be mentioned that the decreases follow those which have occurred during the year on the Company's own undertaking.

The working expenses of the two Lines were as under :—

	Rs.
Khámgaon...	33,794
Amráoti	42,608

These amounts being based on the Company's train mile rate of working do not admit of any further explanation, but it may be remarked that the working expenses of the Khámgaon State Railway include a special debit of a sum of Rs. 625 on account of the construction of huts for porters and pointsmen at Khámgaon.

B. B. & C. I. Railway.—The general results of the past year's working are compared, under the three principal heads of the Revenue Account, with those for 1883 in the subjoined table :—

Main Heads.	1884.	1883.	Increase in 1884.	Decrease in 1884.
	Rs.	Rs.	Rs.	Rs.
Gross Earnings	1,21,95,590	1,19,22,209	2,73,381	.....
Working Expenses	52,38,457	51,38,303	1,00,154	.....
Net Earnings ...	69,57,133	67,83,906	1,73,227	.....

The above increases are equivalent to 2·29, 1·95 and 2·55 respectively of the figures for 1883, but as regards Gross and Net Earnings the amounts realised during the year are in excess of any previously recorded.

The guaranteed interest for the year having been Rs. 43,20,164 the net earnings shown above were equivalent to a nominal surplus of Rs. 26,36,969 or 61·03 thereof—an exceedingly good result; but on the principle adopted by the Government of India in its annual synopsis of the transactions of the Guaranteed railways, this surplus should be reduced by the following sums in order to arrive at the gain to the State during the period, *viz.* :—

	Rs.
Company's moiety of surplus profits for the first half of the year...	13,17,768
Contribution to the Provident Fund	69,571
Interest on overdrawn Capital	1,26,542
Total ...	15,13,881

which, deducted from the nominal surplus of Rs. 26,36,969, shown above, leaves the gain to Government at Rs. 11,23,088, or nearly 26 per cent. of the guaranteed interest.

The Net Earnings for the year, *viz.* Rs. 69,57,133, were equivalent to 8·24 of the interest-bearing capital at its close, *viz.* £7,738,800, but only to 7·95 per cent. of the amount expended on open line, *viz.* £8,019,478, the latter having exceeded the former in consequence of the Company having been permitted to overdraw its Capital Account with Government as already explained.

The following figures exhibit other main features of the year's working in comparison with those for 1883 :—

Particulars.	1884.	1883.	Increase in 1884.	Decrease in 1884.
Percentage of expenses to earnings.	42·94	43·10	.....	0·16
Tonnage of goods hauled (paying weight)	932,468	941,954	.....	9,486
Number of passengers carried ...	9,638,817	9,101,781	537,036	.....
Public traffic train mileage ...	1,888,127	1,938,359	.....	50,232
Net Earnings per mileage ...	3·68	3·50	0·18	.....
Do. per mile open ...	15,856	15,461	395	.....

Gross Earnings.—These were derived from the main sources of income in the following proportions compared with the preceding year :—

Main Heads.	1884.		1883.		Increase in 1884.	Decrease in 1884.
	Amount.	Per cent. of Total.	Amount.	Per cent of total.		
	Rs.		Rs.		Rs.	Rs.
Coaching...	37,62,704	30·85	34,81,024	29·19	2,81,680	...
Goods	82,35,823	67·53	82,35,279	69·08	544	...
Telegraph	31,764	0·26	31,963	0·27	.....	199
Sundries...	1,65,299	1·36	1,73,943	1·46	.....	8,644
Total ...	1,21,95,590	100·00	1,19,22,209	100·00	2,82,224	8,843
				Net Increase ...	2,73,381	

Coaching Traffic.—The earnings under this head increased as shown above by Rs. 2,81,680, or 8·09 per cent. of the amount recorded in the previous year, and is due, as in previous years, to the steady development of the general passenger traffic of the line. This will be seen from the following figures comparing the results of the year under this head with those obtained during the preceding 4 years :—

Half-year ending	Bombay Suburban and Local Traffic (including Season Tickets).		Other Traffic.		Total.	
	No.	Rs.	No.	Rs.	No.	Rs.
30th June 1884 ...	2,664,349	1,71,864	2,244,156	16,02,619	4,908,505	17,74,483
31st December „ ...	2,665,487	1,68,814	2,064,825	14,18,220	4,730,312	15,87,034
Total for 1884 ...	5,329,836	3,40,678	4,308,981	30,20,839	9,638,817	33,61,517
Increase over—						
1883	258,852	11,303	278,184	2,39,001	537,036	2,50,304
1882	786,773	43,173	424,141	3,52,983	1,210,914	3,96,156
1881	978,331	52,736	517,392	3,33,054	1,495,723	3,85,790
1880	1,670,070	94,652	948,633	8,26,983	2,618,703	9,21,635

The bulk of the foregoing increase during the year as compared with 1883 was derived from third class passengers, those carried in ordinary trains having yielded an increased income of Rs. 1,24,588 and those in mail trains of Rs. 1,12,329.

Besides the improvements shown above to have taken place in the receipts from passengers the coaching traffic of the year was also swelled by increased receipts for the conveyance of parcels for the public, the income from this source having improved by Rs. 25,709 or 11½ per cent. as compared with the preceding year.

Goods Traffic.—The earnings under this head were practically the same as those for 1883, the increase having been only Rs. 544, though there were of course considerable fluctuations in respect of the commodities dealt with under the head of "General Merchandise," which represents nearly the whole of the main head under notice. About one-half of the Company's earnings from Public Goods Traffic was due to traffic interchanged with foreign lines, the proportions of the latter to the former having been a little over 48 per cent. in the first half, and a little under 55 per cent. in the second half of the year. During the first 6 months of the period the interchanged traffic showed a net increase of Rs. 2,19,568 over the corresponding portion of the previous year, which was chiefly realised in traffic received from the Bhávnagar-Gondal State Railway, and in that forwarded to the Rájputána-Málwa and G. I. P. Railways, while there was a slight decrease in the traffic forwarded to the first-named and in that received from the two last-named lines. During the latter half of the year the traffic interchanged with foreign lines fell off to the extent of Rs. 99,500 as compared with the corresponding period of 1883, and this was due chiefly to decrease in the traffic exchanged with the Rájputána-Málwa system.

The following figures show the fluctuations exceeding Rs. 25,000 each, which took place in the traffic of the year as compared with that for 1883 :—

FIRST HALF.

Increases.	Rs.	Decreases.	Rs.
Coal	31,884	Cotton, half-pressed	1,06,034
Cotton, full-pressed	3,69,999	Mowrah flowers	64,277
Jágri	80,778	Seeds	1,50,543
Metals	32,045	Wheat	2,04,539
Salt	60,091		
Sugar	30,377		

SECOND HALF.

Coal	34,209	Cotton, full-pressed	78,285
Grain	48,249	Do. half-pressed	66,038
Jágri	36,411	State Railway Stores... ...	1,27,592
Metals	29,592	Sundries	84,998
Mowrah seeds	36,627	Wheat...	1,88,169
Sugar	31,071		
Seeds	1,35,929		

Telegraph and Sundry Earnings.—These combined show a decrease of Rs. 8,843 as compared with those recorded for 1883, most of which occurred under Sundries. This consisted mainly of a decrease of Rs. 4,334 in the toll received from the G. I. P. Railway during the first half of the year on its traffic carried over the Company's line from Dádar Junction to Colába, a smaller quantity of cotton having been so carried; and in the second half of the year to a decrease of Rs. 4,945 in the net amount received for mileage of the Company's vehicles over foreign lines consequent on the falling off of traffic forwarded to the G. I. P. Railway.

Working Expenses.—These were incurred on the seven main heads of Account in the following proportions compared with 1883 :—

Main Heads.	1884.			1883.			Increase in 1884.	Decrease in 1884.
	Amount.	Per cent. of Total.	Per cent. of gross Earnings.	Amount.	Per cent. of Total.	Per cent. of gross Earnings.		
	Rs.			Rs.			Rs.	Rs.
Maintenance	14,86,535	28·37	12·19	14,82,613	28·85	12·44	3,922	...
Locomotive	15,76,614	30·09	12·94	15,50,304	30·17	13·00	26,310	...
Carriage and Wagon .	7,77,738	14·84	6·37	7,27,086	14·15	6·10	50,652	...
Traffic	7,31,417	14·00	6·00	7,14,862	13·91	5·99	16,555	...
General	5,55,667	10·60	4·55	5,27,163	10·26	4·42	28,504	...
Steam Boat	.....	...	...	1,658	0·04	0·02	...	1,658
Special and Miscellaneous.	1,10,486	2·10	0·90	1,34,617	2·62	1·13	...	24,131
Total ...	52,38,457	100·00	42·95	51,38,303	100·00	43·10	1,25,943	25,789
						Net Increase ...	1,00,154	

The total *Engineering Maintenance Expenses* were thus practically the same for the two years, the increase of Rs. 3,922 during 1884 being equal to only 0·26 per cent. of the charges for 1883 ; but there were of course considerable variations under the main heads of Abstract A. as will be seen from the following :—

Main Heads.	1st Half.		2nd Half.		Net Total.	
	Increase in 1884.	Decrease in 1884.	Increase in 1884.	Decrease in 1884.	Increase in 1884.	Decrease in 1884.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
General Superintendence...	9,213	.....	2,851	....	12,064	.....
Permanent Way	.....	86,524	51,918	...	.....	34,606
Bridges, &c.	.....	61,149	25,004	...	.....	36,145
Stations and Buildings ...	17,335	.....	25,257	...	42,592	.....
New Minor Works ...	1,499	.....	.....	517	982	.....
Unclassified	.....	2,431	21,466	...	19,035	.....
Total ...	28,047	1,50,104	1,26,496	517	74,673	70,751
				Net Increase ...	3,922	

The largest variation brought out in the foregoing table is the decrease of Rs. 86,524 during the first half of the year under the head of *permanent way*, which was due to the debits during the preceding year having included exceptionally heavy charges on account of the replacement of 10 miles of Adam's No. 2 by ordinary road, with which there was nothing to correspond during the first half of 1884. The increase of Rs. 51,918 under this head during the second half of the year is due mainly to additional outlay on ballasting and to the relaying of about 16 miles of the line with new rails against about 10½ miles only during the corresponding half of 1883.

Under the head of *bridges* the decrease of Rs. 61,149 during the first half of the year may be ascribed generally to the heavier outlay in 1883 on the repairs of flood damages at the North and South Purna bridges and along the Dáhánu Swamp ; while the increase of Rs. 25,004 during the second half was due to the erection of wire in lieu of other fencing, to the strengthening of embankments in defective places, and to heavier repairs to culverts and iron bridges.

The outlay on *Stations and Buildings* exceeded that for 1883 in both halves of the year, the aggregate increase having been Rs. 42,592. This was due mainly to the charge of the revenue portion of the outlay on the new station at

Dádar, to the erection of temporary *cadjan* sheds at Mody Bay, to the rebuilding of certain gate lodges, and generally to increased outlay on repairs, alterations, additions and improvements, the condition of many of the stations having been animadverted upon in the Inspection Reports of Government officers.

As regards the remaining heads of the Abstract, the decrease of Rs. 9,213 during the first half of the year under *General Superintendence* is merely nominal and results from a large credit having been allowed for a recovery from Government of the Company's supervision charges on the construction of the Khárághoda and Uru Salt Works; while the increase of Rs. 21,466 during the second half of the year against *Unclassified Expenditure* is atributable to larger debits for the conveyance of Stores than were booked during 1883.

The *Locomotive Expenses* of the year exceeded those of 1883 by Rs. 26,310 the variations composing which are shown in the following statement under the main heads of Abstract B :—

Main Heads.	First Half.		Second Half.		Net Total.	
	Increase in 1884.	Decrease in 1884.	Increase in 1884.	Decrease in 1884.	Increase in 1884.	Decrease in 1884.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
General Superintendence.	.....	558	1,418	...	860	.....
Running Expenses ...	5,583	.....	6,400	...	11,983	.....
Fuel...	21,329	.....	2,384	...	23,713	.....
Water	.....	980	109	...	.....	871
Oil, Tallow, &c.	4,390	.....	1,083	...	5,473	.....
Maintenance and Renewals.	.....	29,315	23,959	...	.....	5,356
Unclassified	.....	7,708	.....	1,784	.....	9,492
Total ...	31,302	38,561	35,353	1,784	42,029	15,719
				Net Increase ...	26,310	

The above figures show that the heads Running Expenses, Fuel and Oil, Tallow, &c., which are directly affected by the amount of work done exhibit increases aggregating Rs. 41,169, which are not consistent with the decrease of 33,349 in the recorded engine mileage for the year. As regards *Running Expenses* the increase of Rs. 5,583 during the first half of the year has been ascribed to 1,289 more trains having been run; and that of Rs. 6,400 during the second half to a greater number of drivers and firemen having been employed, partly on account of the breaks in the line during the monsoon floods and partly in consequence of an anticipated increase of traffic. As regards *Fuel* the explanations which have been put forward are not so satisfactory, particularly in respect of the latter half of the year. During the first six months there was a decrease of 17,233 in the engine mileage and of 197 tons in the quantity of coal consumed, but the average price of the latter was greater than in the first half of 1883, *viz.*, Rs. 16-14-6 per ton against Rs. 15-13-3, which accounts for nearly the whole of the increase of Rs. 21,329 shown in the above statement. But in respect of the increased charges under this head during the second half of the year the Chief Auditor and Accountant writes as follows: "Although there was a decrease of 17,397,412 (nearly 6 per cent.) in the ton mileage (freight and dead weight) as compared with 1883, there was an increase of 743 tons in the coal consumed, the increase being at the rate of over 11 per cent. per ton mile of freight and dead weight hauled, that had the rate of consumption been in the same proportion to the work done as in 1883, the total quantity consumed would have been about 1,800 tons less than it was, which is equivalent to Rs. 28,000. The Locomotive Superintendent attributes the higher rate of consumption partly to the increase of about 21,000 miles on account of Ballasting, which he states is heavier on fuel consumption than other mileage on account of the time Engines have to stand in proportion to the miles they run, and from other causes. He does not believe however that this accounts for the whole of the increase, but is inclined to think

that the quality of the Fuel used may not have been so good as in 1883." This matter has been enquired into further but no more satisfactory explanation can be obtained. The average cost of coal was Rs. 15-9-11 per ton as against Rs. 16-3-4 per ton in the second half of 1883. The increase under *Oil, Tallow, &c.*, was probably due to the higher average rate at which Castor Oil was issued during the year, *viz.*, Rs. 13-4-0 as against Rs. 12-8-0 in 1883.

The expenditure on *Maintenance and Renewals of Engines and Machinery* shows a decrease of Rs. 29,315 during the first half of the year. This was due to two renewed Engines having been charged to Revenue during 1883 at a cost of Rs. 52,141, none having been so charged during last year. Allowing for this the ordinary charges show an *increase* of Rs. 22,826, caused by a larger quantity of material having been used on more extensive repairs. During the second half of the year the outlay under this head increased by Rs. 23,959, of which Rs. 12,703 was for Wages and Rs. 11,256 for Materials. Regarding the former the Locomotive Superintendent explains that a larger number of men were employed in consequence of the growth of work during previous half-years, and as regards Materials the excess is much reduced if allowance is made for an exceptional credit of Rs. 7,782 which was afforded in 1883 for over-charges made in previous half-years on articles manufactured and repaired.

Unclassified Expenditure shows a net decrease of Rs. 9,492 during the year, which may be set down to a decrease of Rs. 22,338 in the charges for Carriage of Revenue stores reduced by an increase of Rs. 12,756 in the debits for loss by exchange. The former is due to smaller quantities of coals and other material having been moved, and the latter partly to more imported coal in proportion to that purchased in India having been used, and partly to the rate of exchange having been less favourable than in 1883.

The outlay under *Carriage and Wagon Expenses* shows a greater variation than that under any other main head of service, the increase over 1883 having been Rs. 50,652, which is accounted for as follows :—

Main Heads.	First Half.		Second Half.		Net Total.	
	Increase in 1884.	Decrease in 1884.	Increase in 1884.	Decrease in 1884.	Increase in 1884.	Decrease in 1884.
General Superintendence ...	.....	551	.....	220	.....	771
Repairs and Renewals ...	31,617	...	3,086	.....	34,703	...
Cleaning and Oiling	3,783	..	5,831	.....	9,614	...
Unclassified	8,535	...	.....	1,429	7,106	...
Total ...	43,935	551	8,917	1,649	51,423	771
				Net Increas ...	50,652	

The only item, however, which appears to call for special notice is the increase of Rs. 34,703 in the cost of repairing and renewing Carriages and Wagons which a further analysis shows to be composed of the following :—

First Half.

	Rs.
Increase under Coaching Vehicles	5,359
„ „ Goods „	26,258
	31,617

Second Half.

Increase under Goods Vehicles	6,354
	37,971
Less—Decrease under Coaching Vehicles ...	3,268
Net Increase ...	34,703

The variations appearing above are not in all respects consistent with the amount of work done during the different periods as indicated by the following figures, but the nature and extent of the work done under "Repairs" varied considerably between light and heavy :—

First Half.

Coaching Vechicles—
Number repaired 3, decrease in 1884.
„ renewed 3, increase do.
Goods Vehicles—
Number repaired 175, decrease in 1884.
„ renewed 22, increase do.

Second half.

Coaching Vehicles—
Number repaired 12, increase in 1884.
„ renewed 5, do. do.
Goods Vehicles—
Number repaired 53, decrease in 1884.
„ renewed 33, do. do.

The comparisons between numbers and cost are further vitiated in respect of Outlay charged to repairs and renewals on account of the work of replacement of 8-ton by 10-ton axles, axle-boxes and springs, which showed the following variations :—

Increase of Rs. 24,298 during the 1st half year.
Do. „ 4,799 do. 2nd do.

While the charges for the second half of 1883 were reduced by abnormal credits to the extent of Rs. 8,684 on account of certain previous overcharges; and by the first cost of Oil put into the axle-boxes of renewed vehicles and renewed axles having been charged to "Oiling" instead of to "Repairs and Renewals" as formerly. This accounts in great measure for the increase of Rs. 9,614 shown under ', Cleaning and Oiling", the only other main head requiring notice being "Unclassified Expenditure", against which an increase of Rs. 7,106 is recorded. This was due to the use of a greater quantity of English Material in repairing and renewing vehicles, and to the rate of exchange having been rather more unfavorable in 1884 than in 1883.

The Traffic Expenses of the year are shown to have increased by Rs. 16,555, which was caused practically by an increase of Rs. 13,372 in the charges for *Station Staff* during the first half of the year. Nearly the whole of this was booked during the first half of the year and was the result of the larger traffic dealt with during that period. Under *Fuel, Lighting, Water and General Stores* there was an increase of Rs. 8,676 in the second half of the year reduced by a saving of Rs. 7,323 in the first half. The latter was due to an exceptional issue of Wagon covers and ropes during the corresponding period of 1883, and the former was occasioned by improved lighting arrangements at certain stations.

General Charges show an increase of Rs. 28,504 during the year, which is the accumulated result of small increases under almost every head of Abstract E. during both halves of the period. The figures have been investigated but present no features worthy of special remark.

The Special and Miscellaneous Expenditure of the year shows a net decrease of Rs. 24,131. The following are the more important variations :—

	Rs.
Increases.	
Compensation charges	8,966
Rates and Taxes	3,610
Decreases.	
Payments to other Lines	10,693
Miscellaneous expenditure	16,805

The increase under *Compensation* was due to an exceptional payment on account of cotton damaged by fire during the second half of the year, but its effect on the Company's working expenses was modified to the extent of Rs. 8,469

by transfer to the Fire Insurance Fund. Allowing for these transfers the total payments during the year on account of compensation amounted to only Rs. 5,661, not a large sum in relation to the traffic dealt with. Under *Rates and Taxes* the increase of Rs. 3,610 was occasioned by payments to the Bombay Municipality on account of the Company's new Goods Terminus at Mody Bay. The saving shown against *Payments to other Lines* is only nominal, the charges on account of mileage of foreign Stock having during 1884 been deducted from the congnate head of Receipts in Abstract K., while during 1883 they were separately charged in Abstract G.

Finally the large saving of Rs. 16,805 against *Miscellaneous Expenditure* was occasioned partly by an exceptional debit in 1883 of Rs. 5,400 towards the new church at Parel, and partly by a diminution in the amount of fees formerly paid to the Port Trust in respect of the Carnac Bandar Traffic, which, during 1884, was dealt with almost entirely on the Company's own premises at Mody Bay.

Southern Marátha Railway—The Bellary-Haspet section of this Line, 40½ miles, was opened to traffic on the 24th March 1884. A further section, the East Deccan, 173½ miles from Hotgi to Gadag, was opened to Goods Traffic on the 1st August following and to Passenger Traffic on the 15th September 1884. The mean mileage open throughout the year was therefore about 103 miles.

The train mileage worked amounted to 125,689 yielding Rs. 2,13,059-4-0 equal to about Rs. 1·70 per train mile. The expenses amounted to Rs. 2,34,046-1-11 equal to Rs. 1·86 per train mile. The loss on working the mileage open for the periods given above has therefore been Rs. 20,987.

3. *Expenses.*—The expenses were made up as follows:—The percentage borne by the expenses of each abstract to the gross working expenses and the cost of each per train mileage is also given:—

Expenses 1884.		Percent on Gross.	Per Train miles annas.
Rs. 56,422	Abstract A.	24·11	7·18
„ 70,980	„ B.	30·32	9·03
„ 4,900	„ C.	2·09	0·62
„ 56,980	„ D.	24·34	7·25
„ 43,669	„ E.	18·67	5·56
„ 1,095	„ G.	0·47	0·14
„ 2,34,046	Total	100·00	29·78 Rs. 1·86

There is nothing special to add in connection with these figures further than to remark that the brief periods during which each section of the line was wholly open to both classes of traffic told unfavourably on the working cost.

Earnings.—The earnings of each description of traffic and the percentage of the total yielded by each is given below:—

Earnings 1884.		Percent on Gross Earnings.
Rs. 88,583	Coaching Traffic	41·58
„ 1,20,256	Goods Traffic	56·44
„ 1,692	Electric Telegraph	0·80
„ 2,528	Sundries	1·18
Rs. 2,13,059		100·00

Coaching Traffic.—The 3rd Class (lowest) Passenger Traffic yielded Rs. 73,865 or about 83 per cent. of the gross Coaching Earnings, the numbers carried having been 135,963 or 99 per cent. of the gross number of passengers carried. Haulage and hire of Post Office Vehicles returned Rs. 5,788—The other items of Coaching Traffic were unimportant.

Goods Traffic.—General merchandise yielded Rs. 71,095—or 59 per cent. of gross goods earnings—for 16,787 tons lifted; Railway Materials for construction returned Rs. 42,026—equal to 35 per cent. of Goods Earnings for 28,620 tons lifted. The other classes of Traffic were insignificant. The weight of construction materials carried was about 58 per cent. of the gross tons lifted.

Under General Merchandise the following were the principal staples of traffic carried.—

Abstract of principal commodities for the year ended 31st December 1884.

Description of Goods.	Quantity.		Receipt.		Total.	
	Ending June 1884.	December 1884.	Ending June 1884.	December 1884.	Quantity.	Amount.
	Tons.	Tons.	Rs.	Rs.	Tons.	Rs.
Cotton Raw	214·36	980·17	570	13,099	1194·53	13,669
Do. Manufactured	36·81	688·19	147	6,843	725·00	6,990
Fruit and Nuts	14·29	372·03	41	2,194	386·32	2,235
Grains and Pulses	312·79	5,664·69	512	14,383	5,997·48	14,895
Metal and Manufactures... ...	11·61	507·47	41	3,570	609·08	3,611
Oil	5·25	524·38	17	3,247	529·63	3,264
Salt	50·22	633·25	82	1,294	683·47	1,376
Seeds	306·72	2,305·25	524	10,083	2611·97	10,607
Silk, raw	·18	59·06	2	1,010	59·24	1,012
Wood	221·75	957·12	407	2,334	1,178·87	2,741

Bhávnagar-Gondal State Railway.—The net revenue for the year 1884 amounted to Rs. 4,97,471, giving a percentage on the total Capital outlay open line, including Suspense, of 5·35. The general results of the working since the opening compare as follows:—

	1881.	1882.	1883.	1884.
Miles open at end of year	192·5	193	193·21	193·21
	Rs.	Rs.	Rs.	Rs.
Capital outlay at end of year	74,46,353	86,75,711	90,49,232	92,92,040
Cost per mile open (exclusive of amount at debit of Suspense heads)	34,982	44,836	45,454	46,681
Gross earnings during the year	6,88,385	8,76,837	8,94,180	10,92,312
Working expenses during the year... ...	4,83,131	5,22,189	5,67,567	5,94,841
Net profit of year	2,05,254	3,54,648	3,26,613	4,97,471
Percentage of net profits on Capital cost ...	2·75	4·09	3·61	5·36
Gross earnings per mile per week (calculated on mean mileage worked)...	76·24	87·14	89·05	108·72

The grants originally assigned for the year 1884-85 were—

	Rs.
Receipts	9,60,000
Outlay	5,70,000

These were modified as accepted in the revised estimate of the year to—

Receipts	11,00,000
Outlay	6,09,000

The actuals on closing of the Finance Account of the year will probably be—

Receipts	11,21,000
Outlay	6,24,000

The Budget Estimate for 1885-86 has been framed for—

Receipts	11,10,000
Outlay	6,10,000
Net Receipts ...	5,00,000

and is accepted by the Government of India for these amounts.

IX—Traffic and Working.

G. I. P. Railway.—The most noticeable feature in the traffic of the past year was the improvement under Coaching. The following statement shows the number of passengers carried in each class separately for "Troops and Police" and the public, and indicates the direction in which the traffic has developed :—

	First Class.		Second Class.		Third Class Mail.		Third Class Ordinary.	
	Troops and Police.	Public.	Troops and Police.	Public.	Troops and Police.	Public.	Troops and Police.	Public.
1884	3,252	50,882	74,312	227,425	13,371	493,562	3,529	7,696,031
1883	2,804	39,276	70,521	121,124	17,271	487,069	...	6,174,934
Increase ... in 1884.	448	11,606	3,791	106,301	...	6,493	3,529	1,521,097
Decrease... in 1884.	...	...	...	...	3,900	...	...	.....

It is thus seen that the only point at which there has been even an approach to a falling off is the carriage of Troops in the Third Class, but this is so trivial that it only emphasises the remarkable improvement that has taken place in the Company's passenger traffic as indicated by a total increase of over 1½ millions in the numbers carried. The principal cause that operated to produce this result was the revision of fares introduced towards the close of 1883, and will therefore be more appropriately dealt with under the next head of the report. There was an aggregate increase in the receipts from "Parcels for the public" of Rs. 1,71,048 during the past year which is in like manner attributable to alteration of rates and will similarly be considered farther on. From "Troops and Police" and the other cognate heads the receipts realised Rs. 73,730 less than in 1883, but in all other respects there was a uniform advance on the figures for that year. The record of the Company's Goods business shows a very different result from the above. The total reduction in the realisations amounted to over Rs. 29½ lákhs being above 10 per cent. of the figure for 1883. The variation in the actual returns is still further increased if the nominal credits for carriage of Revenue Stores be disregarded. The fluctuations in the General Merchandise Traffic, from which source Rs. 20¼ lákhs less were realised than in the previous year, are shown in the subjoined table in which only the increase or decrease in the quantities carried and the receipts earned from the principal articles of trade appear :—

Particulars.	Increase in 1884.		Decrease in 1884.	
	Tons.	Rs.	Tons.	Rs.
Bagging	...	...	1,254	29,140
Coal and Coke	392	...	...	83,475
Cocoanuts	3,178	91,654	...	...
Cotton	...	...	34,950	11,24,113
Food grain	...	...	43,156	3,44,732
Fruits	...	...	1,906	50,382
Grocery	554	16,185	...	...
Groundnuts	...	...	803	12,518
Hides, Horns, &c.	1,967	2,039	...	...
Linseed	1,914	...	...	90,884
Metals and Hardware	701	30,030	...	...
Oil	5,422	45,057	...	...
Piece-Goods	...	...	2,605	78,860
Railway Materials	7,866	2,30,419	...	...
Salt	4,693	79,761	..	...
Spice-seeds	...	...	4,461	36,869
Sugar and Jágri	...	...	4,095	40,568
Til-seed	...	...	9,849	2,15,620
Twist...	292	33,308	...	...
Wheat	...	...	2,942	5,21,301

The earnings from the carriage of the abovementioned commodities constituted over 91 per cent. of the total realisations from public Goods. The principal cause of the declension in the Company's income for the past year is thus shown to be the lesser traffic in Cotton, Wheat and Food grain; the decrease under Til-seed being considered to offset the increase in Railway Materials which are the only other important fluctuations. The decline in Cotton is traceable to the Berars where unseasonable rain damaged the past year's crop. The depressed state of the market generally has doubtless directly influenced the business of the Company in this and other directions.

B. B. & C. I. Railway—The improvement in the Coaching Traffic during the past year, which has already been considered in its effect on the Revenue transactions, occurred mostly in the regular passenger traffic which has for some time past been steadily developing.

The following table shows the variations in numbers separately for "Troop and Police," "Season tickets" and ordinary passengers :—

Class.	First half.		Second half.		Total.	
	Increase in 1884.	Decrease in 1884.	Increase in 1884.	Decrease in 1884.	Increase	Decrease.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1st Class	554	...	888	...	1,442	...
2nd „	17,646	...	15,163	...	32,809	...
3rd Ordinary	1,12,191	...	1,93,521	...	3,10,712	...
3rd Mail	79,183	...	11,925	...	91,108	...
Total Public Traffic ...	2,09,574	...	2,26,497	...	4,36,071	...
Troops and Police	...	1,518	...	1,577	...	3,095
Season Tickets ... No. ...	705	...	586	...	1,291	...
Season Tickets ... Fares ...	71,720	...	32,340	...	1,04,060	...

The Season Ticket rates were modified to correspond rateably with the regular fares, and the reduction has tended to develop the traffic in this direction. The variations in Troops and Police are not important. The general advancement that is indicated by the other figures is perhaps mainly attributable to the two causes already assigned for the somewhat similar results that were noticed with regard to the G. I. P. Railway, *viz.*, the notable fair at Násik, and the large number of Hindu marriages. There was an increase in the Parcel receipts, but this was confined to the first part of the year before the alteration in rates, referred to hereinafter, was introduced.

The outcome of the variations in the Goods Traffic for the two years under comparison so far as the Company's income was concerned was practically nil, the difference between the total receipts from Goods Traffic during the past year being only Rs. 543 more than those for the year preceding, but the total paying weight of Goods carried in the former period was 10,986 tons less than in 1883. This abatement occurred in the latter half of the year and affected the traffic interchanged with the Rájputana Málwa and connected Lines. The following statement of principal commodities carried during the year shows the fluctuations in the General Merchandise Traffic in respect of the quantities handled more or less as the case may be :—

Particulars.	First half of 1884.		Second half of 1884.		Total.	
	Increase.	Decrease.	Increase.	Decrease.	Increase.	Decrease.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Cotton	24,873	...	...	7,609	17,264	...
Grain	6,069	...	9,365	...	15,434	...
Jágri	4,346	...	1,675	...	6,021	...
Metals	2,884	...	990	...	3,874	...
Mowrah	...	5,676	857	...	...	4,819
Piece-Goods	...	622	...	141	...	763
Salt	10,763	...	...	4,043	6,720	...
Seeds	...	9,471	17,239	...	7,768	...
State Railway Materials ...	913	...	...	8,960	...	8,047
Timber	3,329	...	2,755	...	6,084	...
Wheat	...	26,698	...	26,121	...	52,819

The improvement in the Cotton Traffic was in full-pressed bales and, as will be further explained, grew out of certain modifications in the rates. There was a falling off in half-pressed, but on the whole a much better cotton business was done during 1884. The traffic in Grain and Seeds was influenced by large bookings from the Rájputana Railway, but the decline in Wheat from the same direction neutralised its effect. The decreases in Mowrah and State Railway Stores are counterbalanced by the improvement in the other articles in the above statement, but the variations are not susceptible of specific explanation.

Southern Marátha Railway.—The Southern Márátha Railway having been opened in 1884 no review of the fluctuations of Earnings and working expenses compared with earlier periods can be made nor can any useful information on these points be added to what has been given above under Part VIII.

Bhávnagar-Gondal State Railway.—The length of line open throughout the twelve months of 1884 was 193·21 miles, upon which the traffic work performed was equivalent to 768,474½ passengers, and 98,309·92 tons of goods carried.

The gross revenue for the year, as compared with 1883, is as follows:—

1884	Rs.	10,92,312
1883	„	8,94,180
Increase ...		1,98,132

and the expenditure is—

1884	Rs.	5,94,841
1883	„	5,67,567
Increase ...		27,274

A tabulated statistical comparison of receipts and expenditure, Capital and Revenue, since the year of opening, is attached to this report as Appendix A., and it will be seen therefrom that the general results of the working are satisfactory.

Also a statement showing the quantities of the principal commodities carried and the receipts therefrom during the year 1884, as compared with 1883, is attached as Appendix B.

The number of traffic trains run during the year 1884 was—

Passenger and Mixed	1,464
Goods	1,784
Special Passenger	49

as compared with 1,670, 758 and 16, respectively, in the previous year.

The decrease of 206 in passenger and mixed trains is due to the discontinuance of the extra mixed train, which was run on the Branch Line during 1883, and the increase in goods trains is due to increased traffic; also a greater number of special passenger trains were run to meet demand of rush of passengers to fairs, &c.

The cases of compensation claims settled during 1884 were 12 against 23 in 1883, and aggregated in amount Rs. 926-5-6. The increase in the amount as compared with 1883, is due to Rs. 698, paid for cost of cotton burnt between Wadhwán and Wadhwán Junction.

The table below shows the cost of the working as compared with previous years :—

Year.	Running Expenses.	Fuel.	Water.	Oil and Tallow.	Engine Repairs.	Total.
1st half, 1882	2·39	2·66	·23	·35	·72	6·35
2nd „ „	3·14	2·33	·46	·33	1·13	7·39
1st „ 1883	2·62	2·93	·27	·34	·76	6·92
2nd „ „	3·28	3·19	·41	·32	1·09	8·29
1st „ 1884	2·17	3·65	·23	·29	·64	6·98
2nd „ „	2·84	3·24	·27	·31	1·16	7·82

In the first half of 1884 the estimated expenditure per engine-mile was 6·66, while the actual was 6·98. The excess is due to higher consumption of coal; also the loads hauled were heavier and the heavy cross winds fully account for this excess. The speed of the Mixed Trains, too, was increased.

The charges for water during the year have been higher.

Full explanations of the Locomotive expenses are given in the Notes on Revenue Accounts for the 1st and 2nd halves of 1884, and it is therefore unnecessary to repeat same here.

The trip system is done under the same system as noticed in the last report, and continues to work well and gives satisfaction.

Rules as to coal premium continue the same as noticed in the last annual report. The grant of premium, no doubt, makes men careful of the coal, and acts beneficially for the Railway; during the year 1884 the amount paid on account of coal premium was Rs. 2,950, as compared with Rs. 2,488 in 1883.

The consumption of coal in 1883 and 1884 compares as under :—

Year.	Consumption per Train-mile.	Cost per Train-mile.	Consumption per Engine-mile.	Cost per Engine-mile.	Per gross 1,000 tons.	Cost per gross 1,000 tons.	Cost of Coal per ton.
	lbs.	Annas.	lbs.	Annas.	lbs.	Rs.	Rs.
1st half, 1883 ...	21·73	2·93	20·96	2·83	149·25	1·26	18·88
2nd „ „ ...	24·28	3·19	23·79	3·13	175·25	1·44	18·39
1st „ 1884 ...	24·34	3·65	23·37	3·50	155·21	1·45	20·97
2nd „ „ ...	20·99	3·24	20·29	3·13	141·97	1·37	21·63

The coal, it will be observed, has risen very considerably in price, so that the result as shown by the cost per 1,000 gross ton-miles, may be accepted as satisfactory.

The whole of the carriage and wagon stock has been well maintained. The table below shows the cost as compared with 1883 :—

Year.	Coaching Repairs and Renewals.	Goods Repairs and Renewals.	Cleaning and Oiling.	Total.
1st half, 1883	·49	·61	·50	1·60
2nd „ „	·72	·36	·58	1·66
1st „ 1884	·40	·12	·30	·82
2nd „ „	·73	·82	·36	1·91

The increase in the 2nd half of 1884 is due to heavy repairs executed to the stock necessitated by heavy traffic in the 1st half.

The low-sided wagons and a great portion of the covered goods, as well as all other stock that could be spared, were lifted and examined in the 2nd half of the year.

The third-class carriages still unfitted with standard patterns, sunshades, &c., are gradually being so fitted.

Four new second-class carriages are now in hand, and will be completed shortly. These are fitted with lavatory and latrine accommodation, and are in every way an improvement on the old pattern of this class of carriages.

To meet the exigencies of the increased cotton traffic, 40 bogie wagons of the same type as supplied to the Rajputána-Málwa Railway had been indented for, but, owing to the delay that took place in their supply, the same number of these wagons have been diverted from the Rajputána-Málwa Railway, and are being erected in the work-shops, and will, it is hoped, be available for the ensuing busy season.

Six engines have been thoroughly repaired during the year.

In the Machine and Smiths' shops some work has been done for the public in addition to work done for the Railway.

A good foundry is required, and an estimate and plan for same is being prepared.

The accounts of the line were inspected by the Examiner of Accounts for Guaranteed Railways, Bombay, and favourably reported on.

The total number of patients treated during the year were 5,494 against 3,651 in 1883; of these 39·13 per cent. alone suffered from malarious fevers.

There were three cases of small-pox recorded during different months of the year, but they were soon isolated, and strict precautions taken to prevent the spread of the disease.

At present there is no epidemic disease of any kind prevailing, and the health of the Railway Staff, both Europeans and natives, is fair, and the line in good sanitary condition.

The conservancy arrangements are satisfactory.

The working of the Railway Police was satisfactory. During the year 122 cases were enquired into, out of which 42 cases were struck off, and of the remaining 80 cases, 64 were cognizable and 16 were non-cognizable against 84 and 31 last year. Of the 64 cognizable cases, 43 were finally reported to the Magistrate, and conviction obtained in 27 cases against 49 and 30 in the previous year. Of the 16 non-cognizable cases, 12 convictions were obtained.

The total number of persons arrested during the year is 87, of which 52 were convicted and 35 acquitted or discharged. The amount of property stolen during the year was Rs. 2,972, of which Rs. 2,149 were recovered against Rs. 1,362 and Rs. 640 last year. During the year no thefts of articles, while in the immediate custody of Police, have occurred, and no member of the Police force has been judicially punished. On the whole the Police have done their duty well.

X—Rates and Fares.

G. I. P. Railway.—The effect of the reduction in the passenger fares introduced towards the close of 1883 was to some extent seen on the traffic for the closing quarter of that year, but the remarkable improvement during the year under report, already noticed in the foregoing remarks, bears unmistakeable evidence as to the safety of the measure. The attraction of native passengers in large numbers to the religious fair held duodecimally at Násik, the improvement and increased commerce of the local and suburban train service, and the celebration of an unusually large number of Hindu marriages during the past year in consequence of the caste inhibition of such ceremonies in that now current, have each and all tended to stimulate the passenger traffic of the past year, but after allowing for their combined influence thereon, there yet remains a large margin of increase which is directly attributable to the reduction in the Coaching fares abovementioned. There have been various minor changes in the Goods rates consisting chiefly in changes of classification to suit corresponding alterations on other connected Lines or the exigencies of trade, but none of sufficient importance to call for notice here; with perhaps the single exception of the through rates for Grain and Wheat from Cawnpur which have been under consideration with a view to uniformity between the two routes to Bombay. Under the preceding head reference was made to the increase in the receipts which sprung from the reduction in the Parcel rates introduced in 1883, but these enhanced earnings were realised in the first half of the year. On the recommendations of the late Railway Conference these rates were somewhat modified during 1884, and the effect has been that traffic which was less advantageously carried by passenger trains under the influence of the former low parcel rates has reverted to the Goods service.

B. B. & C. I. Railway.—The Modification in the rates for parcels recommended at the late Railway Conference was introduced during the year under report and tended to diminish the earnings from this source, but had a compensatory effect in relieving the Coaching Service of traffic which was more consistently carried as Goods. There were no other alterations in fares and rates during the period under report, but it may be noticed that the reduction in the rates for full-pressed cotton quoted in 1883 to certain Bombay houses on their undertaking to use the Railway in preference to the sea route, resulted in a large accession of this traffic during the past year accompained by a substantial increase in Earnings. The imports of Cotton from the stations where the competetion of the sea route is felt, to Bombay during 1883 were 4,747 tons by rail, and 11,967 by sea, whereas in 1884 the imports were 12,882 and 1,372 tons by rail and sea respectively, or 90 per cent. as against 29 per cent. in 1883. Reference has already been made to the reduction in the Season ticket fares, it may here be added that the most important feature of the alteration was the issue of tickets to *bonâ fide* students at half the full fares.

Southern Marátha Railway.—The maxima fares and rates for Coaching and Goods sanctioned for this Company in Bombay Government Resolution No. 1698 of 1883, are given below :—

Passengers.

1st Class	...	...	...	18 pies per mile.
2nd „ ...	...	...	...	9 „ „
3rd „ lowest	...	...	...	2½ „ „

Luggage.

1st Class	...	...	...	60 Sirs. }
2nd „ ...	...	...	...	30 „ } Free.
3rd „ ...	...	...	...	15 „ }

Extra luggage 2 pies per maund per mile.

Carriages.

48. Pies per mile.

Horses.

24. Pies per mile.

Dogs.

8. Annas per 50 miles.

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Parcels.

Weight and Size.	First 100 miles or less.	For every additional 100 miles or portion of 100 miles.
Not exceeding 10 lbs. or 1 cubic foot	3 Annas.	1 Anna.
„ 20 „ 2 feet	6 „	3 Annas.
„ 40 „ 4 „	10 „	5 „
„ 80 „ 8 „	12 „	6 „
For every additional 20 lbs. or fraction thereof	3 „	1½ „

Subject to a maximum charge of Re. 1 for a parcel not exceeding 10 lbs. irrespective of distance.

Goods.

The classification being that of the Great Indian Peninsula, the following will be the maxima.—

1st Class	12	pies per 27 maunds	per mile.
2nd „	18	„ „	„
3rd „	24	„ „	„
4th „	30	„ „	„
5th „	36	„ „	„
Salt, Coal and Food Grains...	10	„ „	„

Terminals.

No charge to be levied for transhipment at a Junction. Maximum charge one anna per maund at each end.—

A special issue of Return Tickets at Re. 1 each (or 2·34 pies per mile) for journeys Bellary-Haspet and back was made in 1st half, 1884, in order to meet the special traffic due to the Humpi festival, and appears to have been fairly successful. They are still in use.

Bhávnagar-Gondal State Railway.—The rate for salt was reduced from 8 to 6 pies per ton-mile from 15th October 1884.

Changes in other rates were made, so as to assimilate with the rates in force on the B. B. & C. I. Railway, with the exception of cotton quarter, half, and three-quarter pressed.

With a view to the encouragement of the use of the Bhávnagar-Gondal Railway as a route for the importation of the materials required by Railways (State, guaranteed, or private) or other large consumers, special rates were introduced.

Through service by sea from Bhávnagar to Bombay was taken in hand from 25th March to 15th May 1884. The result of this attempt to test the idea of through booking by sea was as follows :—

	Maunds.	Freight. Rs.	a.	p.
Goods carried from Bhávnagar-Gondal Railway stations to Bombay	1,264½	252	9	0
Expenses		107	5	8
Profit Rs. ...		135	3	4

To continue the through booking, the Railway chartered in 1885 the steamer "*Oorun*" for the season, but it would be premature to give any opinion of the venture until the season has closed.

H. F. HANCOCK, Major-General, R.E.,
Consulting Engineer for Railways.

APPENDIX A.

Memorandum of Agreement made the twentieth day of April eighteen hundred and eighty-five between the Government of Bombay and the Great Indian Peninsula Railway Company (hereinafter called the Railway Company) for the working of the Bhopál State Railway (hereinafter called the State Railway) by the Railway Company.

2. The State Railway during the term of this Agreement is to be worked by the Railway Company as part of its own undertaking, subject to the same arrangements as are in force with the Railway Company itself under its contract with Government.

3. The Railway Company will be prepared to maintain the Way and Works from such date as Government may desire to make over the maintenance of the whole or portion of the line.

4. The Railway Company is to have entire control of the Traffic working, and provide and maintain all Rolling Stock, Telegraph Instruments, Fuel, Stores, &c., that may be necessary for the working of the Traffic.

5. The same Rates, Fares, Tolls, conditions and arrangements in respect to traffic of all kinds are to be in force upon the State as upon the G. I. P. Railway.

6. The State Railway, including the Telegraph, the Station Buildings, Station Machinery and Station Furniture, Locomotive Sheds, and other Premises, Workshops and Workshop Fittings, Dwellings for Staff, and all other necessary appliances for working, except Rolling Stock and working stores, as mentioned in Clause 4, is to be completed to Bhopál, and all temporary works are to be replaced by permanent works when necessary at the expense of Government.

7. Before the maintenance of the line is taken over by the Railway Company under Clause 3, it is to be inspected by a Committee on which the Railway Company shall be represented; the said Committee to draw up a list of all works or appliances which may appear to be deficient or incomplete, and the cost of which is chargeable to Capital as properly appertaining to the original equipment of the line.

The works in this list, after it has been finally approved by Government, and all subsequent additions and alterations that would be charged to Capital under the Rules in force on the G. I. P. Railway and that may from time to time be agreed upon as necessary for the efficient working of the line, are to be carried out by, or at the expense of, Government.

8. Plans of the new Station Yard and buildings required at Etarsee Junction are to be prepared and jointly agreed upon.

9. The cost of erecting any new station buildings, sidings, &c., to be used for joint traffic purposes at the junction station and of such alterations, additions, &c., to existing buildings as may be agreed upon, is to be defrayed by the Railway Company, and one-third of the interest on this outlay, plus a fair allowance on account of the value of any of the existing buildings which may be turned to account calculated at 7½ per cent. per annum, is to be charged against the earnings of the State line.

10. The gross receipts of the State Railway are to be collected and treated as receipts of the Railway Company.

11. The Railway Company is to be paid for working the State Railway as follows :—

(*a*) The same rate per traffic train mile (less the cost of maintenance for so long and in so far as the line shall not be maintained by them) as may have been incurred in working their own Railway in the half-year.

(*b*) Interest as per clause nine.

(*c*) Five per cent. on gross earnings for hire of rolling stock.

12. In making up the account of net profits the Railway Company's charges calculated as above are to be the first charge on the gross earnings, and the actual expenditure incurred by the State (if any) on maintenance of way and works the second charge : the balance being net profits.

13. The net profits ascertained as above are at the end of each half-year to be divided between the State Railway and the Railway Company in the proportion of four-fifths to the former and one-fifth to the latter.

14. The Railway Company are to be responsible for all accidents or damages of all kinds upon the State Railway, to the Public, to the Traffic, to the Railway Company, and otherwise except in the case of any accident or damage caused by the failure of way or works due to defective construction or extraordinary casualty. Government to be responsible for any accident or damage that the Company could not have prevented, which may result from any such failure.

15. All previous arrangements between Government and the Railway Company for the working of the State Railway are to be considered as cancelled after this agreement comes into force.

16. Upon the termination of this agreement the amount of compensation to be paid by either Railway to the other for Capital expenditure incurred shall be determined by mutual agreement or, if necessary, by arbitration as provided for herein.

17. This agreement, which is subject to the sanction of the Board of Directors and of Government, is to continue in force for three years, or until cancelled by a twelve months' notice to be given by either the State Railway or the Railway Company, such notice to terminate only on the 30th of June or 31st of December in each year.

18. If any dispute arise in carrying out this arrangement it shall be open to either the State or the Railway to call for an arbitration to be conducted in the usual way.

G. A. BARNETT,
Agent, G. I. P. Railway Company.

H. F. HANCOCK, Major General, R. E.,
Joint Secretary to Government, P. W. D. (Railway).

APPENDIX B.

MEMORANDUM OF AGREEMENT made this twenty-seventh day of November in the year of our Lord one thousand eight hundred and eighty-four between the Great Indian Peninsula Railway Company (hereinafter called the G. I. P. Railway) and the Bombay Baroda and Central India Railway Company (hereinafter called the Baroda Railway) for through running of Traffic and Stock between the two Railways.

Term of agreement.

Clause I.—All existing Agreements between the two Railways shall be cancelled (except as hereinafter provided) at the end of the month of December in the present year, and this agreement shall be in force on and after the first day of January eighteen hundred and eighty-five, until the expiration of six months' notice from either of the two Railways to revise or cancel it, except in regard to the provisions of clauses three, eight, and nine, and except also as to the provisions of any other clause as to which a different term of notice is fixed.

Any notice to cancel or revise any part of this agreement, under the provisions of this clause shall take effect only upon the thirtieth of June or the thirty-first of December in any year.

Definitions.

Clause 2.—For the purposes of this Agreement unless there be something repugnant in the subject or context—

Bombay.

I. The Lines of the two Railways respectively and all Stations (except the Joint Station at Dádar hereinafter mentioned as Dádar Junction) which are now, or may hereafter be, opened by either the Baroda Railway or the G. I. P. Railway on the south of a line drawn from east to west, across Bombay Island through the centre of Dádar Junction, shall be considered, and they are referred to in this Agreement as being in Bombay.

Coaching Traffic.

II. Coaching Traffic shall be understood to mean and include, all Passengers, Horses, Carriages, Dogs, Parcels, Luggage, and any other Traffic which is carried at Coaching rates.

Troop Traffic.

III. Troop Traffic shall be understood to mean and include all Traffic carried for Government in Troop Extra Trains as well as in ordinary Passenger Trains at Coaching rates upon Government requisitions.

Goods Traffic.

IV. Goods Traffic shall be held to mean and include all Traffic of all sorts that is carried at what are usually known as Goods Rates.

Through Traffic.

V. Through Traffic shall be understood to mean coaching and Goods Traffic which may be booked or invoiced through, between stations of either of the two Railways parties to this Agreement, except Traffic booked or invoiced to, or from, Dádar Junction which shall be treated as Local Traffic, and except Traffic booked or invoiced to, or from, stations in Bombay.

Train.

VI. Wherever the word "Train" is used it is meant to include, and apply to Engines running without a Train.

Fractions of days, money, &c.

VII. In all cases fractions of a mile shall be treated as a mile, fractions of annas, if not less than six pies, shall be treated as an anna, and if less than six pies shall be dropped, except only in any Passenger fares which may be quoted at less than four annas, when the nearest quarter anna shall be charged and taken to account: fractions of hours or of days shall be treated as full hours or days as the case may be; the day shall be considered as twenty-four hours commencing from twelve o'clock midnight; the week shall be considered as commencing at midnight on Saturday, and the half-year shall be considered as ending on the thirtieth of June or the thirty-first of December as the case may be.

Running Powers. For Goods Traffic in Bombay. To Docks. For Troops Traffic. For Local Passenger Traffic between Bándra and Bombay. Local Coaching Traffic in Bombay.

Clause 3.—I. The G. I. P. and the Baroda Railways respectively shall each have absolute running powers, upon the terms and conditions hereinafter mentioned, for all descriptions of Goods Traffic, and for the conveyance of Troops, over the Line of the other Railway in Bombay.

II. The G. I. P. Railway shall have the right to run its own Troop and Goods and other Trains over the Baroda Railway in Bombay into and out of any Dock which is now or may hereafter be constructed in Bombay, and to which access may be obtained by means of the Baroda Railway.

And in like manner the Baroda Railway shall have the right to run its own Troops and Goods and other Trains over the G. I. P. Railway in Bombay into and out of any Dock which is now or may hereafter be constructed in Bombay, and to which access may be obtained by means of the G. I. P. Railway.

III. The Baroda Railway shall be entitled, upon payment of the toll hereinafter mentioned (see clause seven) to the G. I. P. Railway, to run its own special Troop Train, into and out of any Station in Bombay of the G. I. P. Railway.

And the G. I. P. Railway shall also be entitled upon payment of the toll hereinafter mentioned (see clause seven) to the Baroda Railway to run its own Special Troop Trains into and out of any Stations in Bombay of the Baroda Railway.

IV. The G. I. P. and the Baroda Railways respectively shall each have absolute running powers, upon the terms and condition hereinafter mentioned, (see clause eight) for the conveyance of Coaching Traffic by a joint or other service of Local Passenger Trains between the Bándra Station of the Baroda Railway and the terminus in Bombay of the G. I. P. Railway.

V. The running powers mentioned in paras. one, two, three, and four, of this clause shall be subject to withdrawal or modification or alteration by mutual consent from time to time. Failing such mutual consent the running powers shall not be withdrawn or altered.

The terms and conditions upon which these running powers are exercised may be altered by mutual consent, or by arbitration in the manner provided for in the last clause of this Agreement.

VI. The G. I. P. and the Baroda Railways respectively shall further each have such running powers over the Line of the other Railway in Bombay for such Coaching Traffic as is not provided for in the preceding sections of this clause upon such terms as shall be mutually agreed upon from time to time.

Conditions for exercise of Running powers in Bombay.

Clause 4. 1.—The G. I. P. Railway shall provide and maintain, at its own expense, its own Station for Goods Traffic at Colaba and elsewhere between Dádar Junction and the Terminus in Bombay of the Baroda Railway as may be agreed upon between the two Railways from time to time, and all the Stations so provided shall be worked and controlled exclusively by the G. I. P. Railway.

The junctions with the Baroda Railway giving access to any Stations so provided by the G. I. P. Railway shall be such as may be mutually agreed upon between the Railways from time to time. Such Junctions and all necessary Signals shall be provided and maintained at the expense of the G. I. P. Railway, and the G. I. P. Railway shall pay all the cost of working the junctions and signals at each of such Stations from time to time.

In like manner the Baroda Railway shall provide and maintain, at its own expense, its own Stations for Goods Traffic at Mody Bay and elsewhere between Dádar junction and the terminus in Bombay of the G. I. P. Railway, as may be agreed upon between the two Railways from time to time, and all the Stations so provided shall be worked and controlled exclusively by the Baroda Railway.

The junctions with the G. I. P. Railway giving access to any Stations so provided by the Baroda Railway shall be such as may be mutually

agreed upon between the Railways from time to time. Such junctions and all the necessary signals shall be provided and maintained at the expense of the Baroda Railway, and the Baroda Railway shall pay all the cost of working such junctions and signals at each of such Stations from time to time.

Docks in Bombay.

Clause 5. I.—The G. I. P. Railway shall make its own arrangements with the Dock authorities for the use of Sidings, &c., within the limits of the Dock premises.

In like manner the Baroda Railway shall make its own arrangements with the Dock authorities for the use of Sidings, &c., within the limits of the Dock premises.

Rates, &., for Trains of each Railway on Line of the other in Bombay.

Clause 6. I.—The Baroda Railway shall quote its own rates and fares and work its own Troop and Goods Trains, providing Engines and stock of all kinds, and Staff, &c., over the G. I. P. Railway in Bombay paying only the toll hereinafter named to the G. I. P. Railway for the use of their Line.

All the servants of the Baroda Railway when running over the G. I. P. Railway in Bombay shall be subject to all the rules and regulations of the G. I. P. Railway and shall obey all the instructions given to them, from time to time, by the Staff of the G. I. P. Railway in regard to the working of trains, &c., while running over that Line.

The Trains of the Baroda Railway on the G. I. P. Railway shall be worked at such times, and at such speed as may be fixed by the G. I. P. Railway from time to time. But the times of Trains &c., shall be, as far as possible, mutually arranged between the Traffic Managers of the two Railways, and the Baroda Railway shall be entitled to run a fair proportion of their Trains in turn with the Trains of the G. I. P. Railway on the G. I. P. Line in Bombay.

In like manner the G. I. P. Railway shall quote its own rates and work its own Troop and Goods Trains, providing Engines and stock of all descriptions and Staff, &c., over the Baroda Railway in Bombay, paying only the toll hereinafter named, to the Baroda Railway for the use of their Line.

The servants of the G. I. P. Railway, when running over the Baroda Railway in Bombay shall be subject to all the rules and regulations of the Baroda Railway and shall obey all the instructions given to them from time to time by the Staff of the Baroda Railway in regard to the working of Trains, &c., while running over that Line.

The Trains of the G. I. P. Railway on the Baroda Railway shall be worked at such times and at such speed as may be fixed by the Baroda Railway from time to time. But the times of Trains, &c., shall be as far as possible mutually arranged between the Traffic Managers of the two Railways, and the G.I.P. Railway shall be entitled to run a fair proportion of their Trains in turn with the Trains of the Baroda Railway on the Baroda Line in Bombay.

Responsibility of each Railway during exercise of Running Powers in Bombay.

II.—Except as provided in para. three of this clause, the G. I. P. Railway shall be responsible for any act or neglect or omission of any of their servants when working G. I. P. Trains over the Baroda Railway in Bombay, and also for the consequences of any accident which may be caused by the failure of, or any defect in, the G. I. P. Railway Stock on those Trains.

And except as provided in para. three of this clause, the Baroda Railway shall in like manner be responsible for any act or neglect or omission of any of their servants when working Baroda Railway Trains over the G. I. P. Railway in Bombay, and also for the consequences of any accident which may be caused by the failure of, or any defect in, the Baroda Railway Stock on those Trains.

Accident caused by Tempest, &c.

III.—But the consequences to the Traffic or Trains referred to in para. two of this clause or to the property of their Railway of any accident or loss or damage which may be caused by the act of God, or by tempest, or the Queen's enemies, or civil commotion shall be borne by the owning Railway.

Each Railway to find Grease, &c. for its own Trains in Bombay.

IV.—In regard to the Trains referred to in para. two of this clause the Baroda Railway shall find grease or oil for all their Engines and Stock when running over the Line of the G. I. P. Railway in Bombay. And in like manner for such Trains the G. I. P. Railway shall find grease or oil for all their Engines and Stock when running over the Line of the Baroda Railway in Bombay.

Toll.

Clause 7. I.—The G. I. P. Railway Company shall pay to the Baroda Railway a sum of one rupee and a half for each loaded Goods and coaching vehicle irrespective of its contents and description which the G. I. P. Railway shall run in the exercise of the powers given to them in paras. one, two, and three, of clause three of this agreement over the Line of the Baroda Railway in Bombay, except that no payment shall be made for any Engines or Brake Vans of the G. I. P. Railway when running over the Baroda Railway in Bombay.

And in like manner the Baroda Railway shall pay to the G. I. P. Railway a sum of one rupee and a half for each loaded Goods and coaching vehicle irrespective of its contents and description which the Baroda Railway shall run in the exercise of the powers given to them in paras. one, two, and three of clause three of this agreement over the line of the G. I. P. Railway in Bombay, except that no payment shall be made for any Engines or Brake Vans of the Baroda Railway when running over the G. I. P. Railway in Bombay.

No other payment of any kind shall be made by either Railway for the use of the other in the exercise of the running powers by the respective Railways under paras. one, two, and three of clause three.

Running powers between Bándra and Terminus of G. I. P. Railway in Bombay.

Clause 8. I.—The arrangement which was made in the year 1864 under which the G. I. P. Company's Máhím Branch was closed and removed upon payment of a sum of sixty-seven thousand Rupees to the G. I. P. Railway by the Baroda Railway, and under which, a local Passenger Train service was agreed to between Bándra and the G. I. P. Railway terminus at Bori Bandar or wherever the terminus may be, and intermediate places, shall remain in force, and either of the Railways parties to this Agreement, shall be entitled under the provisions of the fourth para. of clause three of this agreement to establish at any time, such Passenger Train service between the two places mentioned and intermediate stations under the terms herein mentioned.

Local Passenger Train Service.

II.—This Local Passenger Train service shall be mutually arranged between the two Railways, the times of the Trains over the two Railways respectively being agreed to by both Railways.

Twenty-five per cent., allowed for working expenses to Railways working Local Trains.

III.—Whichever of the two Railways finds the stock and staff and works this Local Passenger Train service between Bándra and the terminus in Bombay of the G. I. P. Railway shall (except as provided in para. five of this clause) receive out of the total receipts of such Local Passenger Trains, a sum equal to twenty-five per cent. for working expenses.

Fares by Local Passengers Train Service.

IV.—The fares charged for Passengers conveyed in such Local Train service between Bándra and Byculla shall be the same as those from time to time in force between Bándra and Grant Road, and the fares between Bándra and Bori Bandar shall be the same as those from time to time in force between Bándra and the Church Gate Station of the Baroda Railway.

Tickets available by either route.

V.—These Local Passenger Trains shall be available on the line of either Railway for Passengers to and from places intermidiate between Bándra and the terminus of the G. I. P. Railway in Bombay, but the full fares of Passengers on either Line (carried by such Trains) who do not pass through the junction shall belong to the Company owning these Lines.

Division of Receipts by Local Trains.

VI.—The division of the receipts for through Tickets of all description issued under the provisions of this clause, shall, after deducting the twenty-five per cent. for working expenses provided in para. three of this clause, be divided in mileage proportion of each Railway.

Responsibility for Accidents, &c., in working Local Trains.

VII.—The consequence to the Traffic or Stock or Premises of any act or neglect or omission of the Staff or of the defective condition of the Stock or Road of either of the two Railways, parties to this Agreement, when running upon the line of the other, under the provisions of this clause, shall be borne by the Railway which causes the damage. But damage or loss caused on either of the two Railways by the use of it by the other under the provisions of this clause which may be the result of the act of God, of tempest, the Queen's enemies or Civil commotion, shall be borne by whichever of the two Railways incurs the loss or to which the Stock or Traffic or premises belong.

Staff to act under Rules of Line they are working over.

VIII.—The Staff of both the Railways parties to the Agreement, when working, under the provisions of this clause, upon the line of the other, shall abide by and be subject to all the rules and regulations and instructions of the Railway on which they may be running from time to time.

Dádar Junction.

Clause 9. I.—Plans showing the separate property and Sidings of each Railway respectively, and also the joint property of the two Railways at Dádar junction, have been signed by the Chief Engineers of both the Railways and registered in the Head Office of each Company.

The Up Junction Main Line and the Sidings on the G. I. P. side thereof, have been paid for, and have hitherto been maintained by the G. I. P. Railway, and the land upon which the Up Junction Main Line and these Sidings are laid belongs to the G. I. P. Railway.

Similarly the Down Junction Main Line and the Sidings on the Baroda Railway side thereof, have been paid for and have hitherto been maintained by the Baroda Railway, and the land upon which the Down Junction Main Line and these sidings are laid belongs to the Baroda Railway.

And further the Station buildings at Dádar Junction and all signals &c., at the Junction which are used in common or which control or have reference to trains, &c., passing through and in and out of the Junction have been provided and maintained at the joint equal expense of the two Railways.

II.—The arrangements mentioned in the first para. of this clause shall continue in force as to existing Sidings, Buildings, Signals, &c., and similar arrangements shall be adopted in regard to all future alterations, additions, &c., at the Dádar Junction, the sanction of both Railways being first obtained for any expenditure which has to be so paid in equal proportion by the two Railways.

III.—These conditions and arrangements for the provision and use of the Dádar Junction Station shall not be altered or modified except by mutual consent.

Appointment of Staff at Dádar Junction.

Clause 10.—The Baroda Railway shall appoint all the Staff necessary for working the Dádar Junction, unless and until, any altered arrangements as to the appointment of the Staff shall be mutually agreed to.

Limits of Junction Station.

II.—The Dádar Junction Staff shall take charge of the Railway within the Dádar Junction Signals on each side, and for the purposes of these arrangements; the liability of the Junction Staff shall commence at that point on each side of the Junction Station, but each Railway shall have equal rights in respect of the occupation of the Junction Station, and of the use of the Junction Station Staff.

Responsibility of each Railway at the Junction.

III.—The G. I. P. Railway shall be responsible for the acts of the Staff of that Railway within the limits of the Dádar Junction Station, and for the consequences of any failure of, or defect in, any of the stock of the G. I. P. Railway within the limits of the Junction Station. And the Baroda Railway shall be responsible for the acts of the Staff of that Railway within the limits of the Dádar Junction Station, and for the consequences of any failure of, or defect in, any of the stock of the Baroda Railway within the limits of the Junction Station.

Any loss or damage caused by the acts of the Joint Staff at Dádar Junction shall be charged to the Joint Station expenses.

Junction Staff to control Junction.

IV.—The Staff of both Railways shall obey, and carry out, all the instructions of the Junction Station Staff in regard to the work of shunting and making up Trains, and all other work done at the Parel Junction.

Junction Staff to deal with through Traffic.

V.—The Junction Station Staff shall take charge of, and deal with all Through Traffic (other than that which is to or from Bombay, which will be dealt with under other provisions of this agreement) within the limits of the Junction Station; but any shunting required within the limits of the Junction Station shall be performed by the engines of the Railway which requires it, unless other arrangements are made from time to time for the performance of the shunting work.

VI.—The provisions of this Clause shall not affect Traffic which is worked through to Bombay under the provisions of other Clauses of this Agreement, except only that the responsibility for the acts of the Staff of each Railway respectively, within the Junction Station, shall rest upon each Railway respectively in the manner agreed to in this clause.

Oiling and Greasing of Vehicles at Junction.

VII.—Except as provided in para. four of clause six of this agreement each Railway respectively shall make its own arrangements for oiling and greasing, at its own expense, all the vehicles of all sorts that leave the Dádar Junction Station for its own Railway.

Transhipments at Junction Station.

VIII.—All transhipments at Dádar Junction shall be performed by the Junction Station Staff under the arrangements to be made by the Traffic Managers of the two Railways from time to time. The cost of transhipment done at the Junction Station shall be charged to the joint Station expenses.

Cost of Transhipment.

Records, Returns, &c., at Junction.

IX.—(*a*) The books at the Dádar Junction Station shall be kept by the Junction Staff, and all such books and all through goods shall be at all times, open to inspection by any authorized officer of either Railway.

(*b*) The Junction Station Staff at Dádar shall supply all returns, statements, &c., required by the Audit Offices and by the Traffic Managers of each of the two Railways.

Joint Station Expenses.

X.—The Joint Station Expenses shall be paid in equal proportion by the two Railways.

Through Booking.

Clause II. 1.—Unrestricted through booking of all descriptions of traffic between all the Stations of the G. I. P. and the Baroda Railways, outside of the limits of Bombay, as defined in the first para. of clause two of this agreement, shall be, and remain in force, and shall be held to apply to all traffic of all descriptions, between all Stations at which each of the several descriptions of traffic are booked on each Railway respectively.

Rates, Fares, &c.

II.—All existing rates, fares, classification and general arrangements relating to Through Traffic between Stations of the Baroda and the Great Indian Peninsula Railways shall remain in force until cancelled or modified upon notice given under the provisions of para. six of this clause.

Through Rates.

III.—The through rates and fares shall be the sum of the rates and fares of each Railway respectively as supplied, by each Railway to the other, from time to time, between Dádar Junction and the Stations concerned.

No terminal shall be charged either Railway upon Through Traffic at Dádar Junction.

Minimum charge.

IV.—In the case of through minimum charges which are common to both Railways, the two Lines shall be treated as one, and the amount actually paid shall be divided upon mileage.

Rules; &c., for Through Traffic.

V.—The rules and conditions in force upon each Railway respectively in respect of Local Traffic shall apply to Through Traffic, but shall be subject to alteration on one month's notice, as provided in para. 6 of this clause.

Alteration of Rates, &c., Advices and Rate List.

VI.—Alterations of rates, fares, classifications, rules or conditions relating to Through Traffic shall be made by either Railway only under the following Rules adopted at the Railway Conference in September 1882 which are embodied in this Agreement, and shall be carried out, namely:—

(*a*) That advice shall be sent of all changes on or before the twentieth of each month, and of alterations consequent thereon by the receiving Railway, not later than the end of the month. That advices so sent shall become operative one month after the first of the month following the date of advice.

(*b*) That printed advices (twelve copies or such number as may be agreed on) be sent only once a month to all Railways with which there is through booking, a "*nil*" form being sent when no alteration is proposed.

(*c*) Each Railway shall supply copies, not less than twelve, or in such numbers as may be arranged from time to time, only to the Traffic Managers of those railways with which they have junctions, each Railway respectively giving all necessary Rates and Fare lists of that Railway to their own Stations, and to the Traffic Managers of the connected Railways, that they may, in like manner, advise their own Stations, but should either Railway require more copies, they may, in order to avoid reprinting, obtain any additional number of copies on payment, from the Railway to which the lists refer.

Under the provision of this Rule notices shall be given only by the Traffic Managers of the two Railways parties to this agreement to each other respectively, and notice shall also be given by the respective Traffic Managers of the two Railways parties to this agreement, to all other Railways with which through booking arrangements are in force from time to time.

Collection of charges.

VII.—Each Railway shall be responsible for collecting all charges due to the other on all received traffic, with the following exceptions for which exceptions the Forwarding Railway shall be responsible for collecting the correct charges, namely :—

(*a*) Charges of Live Stock of every description.

(*b*) Charges on all perishable articles booked either as Goods or Parcels.

(*c*) Charges on Commissariat and Ordnance Stores booked as prepaid.

(*d*) Passengers fares, freight on passengers' luggage, and charges for insurance.

(*e*) Charges on all articles booked and carried with the owner.

The Receiving Railway shall not however reduce below the charges mentioned in the Invoice or through Way Bill, without the consent of the Forwarding Company, exept in the case of overcharges the evident result of errors in classification or computation of freight, but shall be responsible for collecting undercharges made in invoicing Goods from Forwarding Stations.

Distances and Station to Station Rates.

VIII.—The distances between Dádar Junction and the Station of each Railway respectively shall be supplied by each Railway to the other from time to time.

But the actual amounts to be charged by each Railway upon Through Traffic shall be furnished by the other Railway in the form of Station to Station rates in lump sums in order to avoid any calculation of charges according to distance by Stations.

Telegrams.

IX.—Telegrams sent by the Traffic Officers and the Station Staff upon through Traffic business shall be despached free; all other Telegrams shall be paid for at usual rates.

Rules for the intercharges of stock.

Clause 12.—The following Rules for the interchange of Stock (except Brake-vans which shall run off the owning Railway only upon mutual arrangement, from time to time, and also except Engines) adopted at the Railway Conference in September 1882, which are in force between all Broad Gauge Railways, shall be the Rules for the interchange of stock between the two Railways, namely:—

General.

I.—(*a*) The day shall be reckoned as twenty-four hours, commencing at midnight, Madras time being adopted in all cases. The week to end at midnight on Saturday.

(*b*) No *dies non* shall be allowed under these Rules.

(*c*) For the purposes of these Rules, the ton shall in all cases be reckoned as equivalent to twenty-seven maunds.

II. —(*a*)All stock shall be considered as handed over when entered in the number-taker's book at the Junction Station, and it shall be so entered directly it is put into the lines or sidings in which such stock is usually placed for that purpose, or at such time and in such way as may be arranged between the Railways forming the Junction.

(*b*) Stock shall not be considered as accepted by the Railway on to which it is going at any Junction Station until it and the load it may contain are in a condition to be taken on by the Railway on to which it is going; and mileage, demurrage, &c., shall be paid by the Railway bringing it to the Junction until it is put into that condition.

(*c*) All vehicles of whatever Railway handed to any Railway at a junction on the outward journey shall be accepted and dealt with only as vehicles of the Railway which brings them to the junction; and vehicles which are returned to a junction after an outward journey shall be treated as vehicles of the Railway to which they are so returned.

III.— Passenger carriages, horse-boxes, carriage trucks, brake-vans and passenger road or luggage vans, shall, irrespective of contents, be in all cases reckoned as coaching vehicles, whether they run upon passenger or goods trains. All other kinds of vehicles shall be reckoned as goods vehicles, also irrespective of contents and of the train on which they run.

IV.— (*a*) Empty vehicles shall be returned to the owning Railway by the exact route and junction by which they were received loaded.

(*b*) Vehicles under load shall be returned to the owning Railway by way of the nearest route and junction; but vehicles may be diverted without penalty for distances not exceeding fifteen miles in one direction, and for longer distances by mutual agreement, for the purpose of obtaining a return load.

(*c*) Vehicles of one Railway shall not be reloaded by another Railway except in the direction of or beyond the owning line.

(*d*) For any departure from the provisions of (*a*), (*b*) and (*c*) of this Rule for return of vehicles, the Railway so missending any vehicle shall pay to the owning Railway a penalty of rupees twenty-two (Rs. 22) per day or part of day from the time each vehicle was missent until it returns to a station on the route by which it should have been sent.

(*e*) Penalty-paying vehicles shall also be subject to ordinary mileage and demurrage charges.

(*f*) If goods are required to be sent to a station beyond the original destination, the consignment may be sent on in the original wagon without penalty.

(*g*) In the event of a wagon being missent through error, the Railway so missending shall pay to other Railways over whose lines the vehicle runs, owing to the error, a haulage rate of one pie per mile per ton of carrying capacity in both directions in lieu of freight. The missending Railway shall also pay ordinary mileage in both directions for the missent distance (and demurrage if incurred), but no penalty.

V.—(*a*) So soon as the rolling stock of any Railway passes into the custody or possession of any other Railway, such other Railway shall be responsible for all and every contingency that may arise from the use of such stock while it remains in its possession. Except that if the contingency is clearly traceable to defect of material or workmanship, the actual repair or repalcement of the vehicle in which there was such defect, but not of any other vehicle or any other consequent damage, shall be at the expense of the owning Railway.

(*b*) The cost of repair arising from ordinary wear and tear shall always be borne by the owning Railway; but in cases of palpable damage (such as dropping heavy weights into wagons and also damaging the bottoms, neglect of greasing or oiling, and other similar neglects), and in all cases of accident or collision, the cost of repair shall, except as provided in para. (*f*) of Rule six, be borne by the Railways in whose custody or possession the stock may be at the time the damage occurs.

VI.—(*a*) In cases in which the stock of any Railway is damaged upon the line of another Railway, the actual time occupied in making the repairs, but not more than ten days in addition to the time allowed for the return of stock under the usual mileage rules, shall be allowed free of demurrage for its repair. But if the repairs cannot be completed in ten days, the vehicle shall be despatched to the owning Railway within that time.

(*b*) In addition to the free allowance as prescribed in clause (*a*) of this Rule the actual time occupied in conveyance of material for repairs from the owning line shall be allowed free of demurrage in the case of damaged stock of one Railway repaired on the line of another Railway.

(*c*) If the damaged stock be not returned either repaired or not repaired within the period allowed, demurrage shall be charged after the expiry of such period, unless specially exempted by the Traffic Manager of the owning Railway.

(*d*) Notice shall, in all cases, be sent by the Traffic Manager of the Railway on which the damage occurred within one month, to the owning Railway, how and when the damage took place, and the nature of it.

(*e*) No claim for the cost of repairs shall be valid, unless made within three months of the date at which the repairs are completed.

(*f*) The cost of repairs to any vehicle damaged which does not exceed ten Rupees shall be paid by the Railway which carries out the repair.

(*g*) No charge shall be made for the freight or material sent for repair of damaged stock, or for the haulage of wagons carrying damaged stock back to the owning Railway.

VII.—Whatever amount is paid for mileage, demurrage or penalty by any Railway for the use of other Railways, shall, in all cases, belong to and be paid over to the owning Railway: except that the amount of the rebate provided for in Rule twenty and of the extra payment provided for in Rule twenty-one shall be made to, and retained by, the Railways which respectively form the junction at which the excess, which causes those allowances, arises, without reference to the Railway to which any of the vehicles exchanged may actually belong.

VIII.—Each Railway shall accept the statements of other Railways with respect to the loads and vehicles, unless the number-takers at the junction notice and record that the loads have been interfered with, when the actual contents and their condition shall be ascertained and recorded by an authorised representative of each of the Railways forming the junction.

IX.—(*a*) The accounts referring to any mileage, demurrage, or penalty in which any Railway is concerned, shall be open to the inspection of such Railway.

(*b*) No claim for mileage, demurrage, rebate, extra allowance, or penalty shall be preferred after a lapse of six months from the date on which a vehicle passed the junction on its outward journey.

X.—In cases of interruption of through communication, caused by failure of way or works owing to flood or other circumstances, demurrage shall not be charged upon stock delayed beyond the time allowed free under the provisions of Rules thirteen and eighteen; but if required by the owning Railway, any Railway so detaining vehicles of another Railway shall, as far as is practicable, send an equal number of

similar vehicles of its own to be used without mileage, demurrage or penalty upon the Railway to which the stock so detained belongs for the time that such stock is compulsorily detained.

Coaching.

XI.—The exchange of passenger stock shall be subject in extent to mutual arrangement between the respective Railways.

XII.—(*a*) The mileage charge on each coaching vehicle shall be seven pies per mile, both on the outwards and the return journey, except that no mileage shall be charged on coaching vehicles not used for ordinary traffic, unless under load.

(*b*) 'Ordinary traffic' shall be understood to be only regular public trains which are advertised to carry passengers, and to include reserved accommodation on such trains: private carriages, troop extra trains, private special trains and special passenger trains put on for such occasions as fairs, &c., shall not be considered as ordinary traffic.

XIII.—(*a*) Coaching vehicles shall be allowed one hour for every twelve and a half miles run on foreign lines and twenty-four hours extra at destination, free of demurrage.

(*b*) In the case of a ferry by which coaching vehicles are crossed over a river where the rails are not continuous, an extra allowance free of demurrage for crossing of twelve hours each way shall be made.

XIV.—Except as provided in rule ten, demurrage shall be charged on each coaching vehicle detained beyond the times named in Rules six and thirteen at the rate of eight annas per hour.

Goods.

XV.—The interchange of goods stock shall extend to all connected lines and branches, a fair proportion of through traffic being accepted at junctions in time of pressure.

XVI.—(*a*) Except as provided in clause (*c*) of this Rule, all consignments of less than three tons shall be transhipped at junction, and it shall be optional with the receiving Railway to tranship at its own cost the contents of any wagon containing a load of less than half its carrying capacity.

(*b*) In the case of a ferry by which vehicles are crossed where the rails are not continuous, it shall be optional with the Railway owning the ferry, in lieu of crossing the vehicle over, to tranship the load at the nearest station to the ferry where the work can be done, advice of all such transhipments being sent weekly to the owning Railway.

(*c*) The Traffic Manager shall be at liberty to make exceptions by mutual agreement as to transhipment in cases of consignments which, from their bulk or weight, fully occupy a wagon, or require exceptional care, such as furniture, glass-ware, stationery, millinery, pictures, musical instruments, &c. &c.

(*d*) To avoid demurrage, it shall be optional with the receiving Railway to tranship at its own expense the contents of a foreign wagon at any point short of destination; and mileage shall cease at the point of such transhipment, notice of all such transhipments being sent weekly to the owning Railway.

(*e*) In all other respects, except as provided in Rule fifteen, the interchange of goods traffic and stock shall be unrestricted.

XVII.—(*a*) Subject to the provisions of this Rule and of Rules twenty and twenty-one, payment shall be made to the owning Railway at the rate of two-thirds of a pie per ton per mile on the weekly aggregate weight charged between any two stations for the contents of all vehicles of one Railway which may be run on another Railway on the outward journey.

(*b*) Goods vehicles carrying passengers or live stock of any kind booked through shall be considered as carrying six tons in all mileage accounts.

(*c*) No mileage shall be paid to the owning Railway on a return load by any Railway which loads a wagon back to or beyond the owning line; but the Railway beyond the owning Railway on to which any wagon is sent with a return load shall pay mileage under the usual rules to the owning Railway.

(*d*) Mileage shall be paid on any return load sent in a wagon of another Railway to any station short of the owning line.

(*e*) No mileage charge shall be made on goods vehicles when running empty.

XVIII.—(*a*) Goods vehicles shall be allowed one hour for every six miles run on a foreign line, and thirty-six hours for unloading and twenty-four hours for reloading at destination, and twelve hours at intermediate stations for each of these operations, free of demurrage.

(*b*) In the case of a ferry by which goods vehicles are crossed over a river where the rails are not continuous, an extra allowance for crossing of twelve hours each way, or such time as may be mutually agreed upon, shall be given free of demurrage; and when such allowance of time is made, mileage shall be paid for loaded stock transferred by such ferry upon half the time so allowed.

XIX.—Except as provided in Rule ten demurrage shall be charged on each goods vehicle detained beyond the time named in Rules six and eighteen, at the rate of one anna per ton of carrying capacity per hour.

XX.—(*a*) When the aggregate excess number of wagons absent from any one Railway upon any other Railway shall exceed two hundred and ten at the end of any week, the receiving Railway may call upon the forwarding Railway to take over a sufficient number of wagons to bring this excess within two hundred and ten; and in the event of the forwarding Railway not intimating within forty-eight hours after notice of tender by the receiving Railway its intention to accept such wagons, a charge of two rupees per wagon per day shall thereafter be paid as a rebate on mileage by the forwarding Railway upon the daily balance in excess of two hundred and ten absent.

(*b*) No notice shall be valid unless given by wire, or in any other way that may be mutually agreed upon, within three days after the close of a week by the receiving Railway of its intention to offer wagons; and the two rupees rebate shall not be charged until the expiry of forty-eight hours after the despatch of the notice by the receiving Railway.

(*c*) When any two Railways have more than one junction with each other, all such junctions shall be regarded for the purposes of this rule as one junction only. But the receiving Railway shall only tender at each junction such proportion of the total excess as was received at that junction.

(*d*) Wagons taken over under the provisions of this rule shall be subject to ordinary mileage and demurrage rules, but no penalty, with the exception that notwithstanding the provision of para. (*c*), Rule seventeen, mileage shall be paid on all such wagons in one direction whether with or without a load, the mileage on the wagons if not loaded being charged as for five tons per wagon.

XXI.—(*a*) The Railway on which through traffic originates shall provide wagons for such traffic. But when the through traffic offering is more than the wagon stock of the sending Railway can cope with, it may call on the receiving Railway to place a number of wagons at its disposal daily at the junction for traffic to and *viâ* the receiving line; and in the event of failure to comply within one week, the sending Railway shall be entitled to charge one and a half rupees per diem per ton of wagon carrying capacity short-supplied, in addition to ordinary mileage, demurrage and penalty which may accrue under the rules on the stock actually running with through traffic: provided that the receiving Railway shall not be required to supply more wagons at each junction than sufficient to maintain an equal interchange of stock at that junction based on the carrying capacity.

(*b*) Open wagons shall be accepted if supplied with proper sheets and ropes.

(*c*) Wagons taken over under the provisions of this Rule shall be subject to ordinary mileage and demurrage rules, but no

penalty, with the exception that notwithstanding the provision of Rule XVII. (*c*), mileage shall be paid on all such wagons in one direction whether with or without a load, the mileage on the wagons if not loaded being charged as for five tons per wagon.

XXII.—In case a goods vehicle is loaded on the homeward journey to any station short of the junction with the owning line, or in case of any alteration in the destination of a vehicle caused by transhipment of the load or otherwise, the Audit Offices of the respective Railways shall make a weekly return of the same to each other, for the purpose of calculating mileage, &c., under these rules.

Goods damageable by fire.

Clause 13.—No goods damageable by fire or goods sheeted shall be allowed to leave the Line of the owning Railway in open wagons except under special arrangements.

Loading of Wagons on return journey to Stations in Bombay.

Clause 14. I.—Baroda Railway wagons may be loaded on the return journey by the G. I. P. Railway to any of their Stations in Bombay, but are not to be considered as returned to the Baroda Railway until they are delivered at Dádar Junction, or as may be arranged from time to time by the Traffic Managers of the two Railways.

II.—In like manner G. I. P. Railway wagons may be loaded on the return journey by the Baroda Railway to any of their Stations in Bombay, but they are not to be considered as returned to the G. I. P. Railway until they have been handed over at Dádar Junction or as may be arranged from time to time by the Traffic Managers of the two Railways.

Claims.

Clause 15.—The amount paid for claims which may arise upon through Traffic shall be paid by the Railway in whose custody the loss or damage occurred, and when this cannot be ascertained with certainty the amount paid in settlement of the claim shall be divided between the two Railways in mileage proportion; but in such cases the consent of both Railways shall be obtained before the settlement of the claim is made.

Invoices.

Clause 16.—The following Rule passed at the Railway Conference in September 1882 is embodied in this agreement, and shall be carried out between the two Railways parties to this agreement, namely:—

That there shall not be more than one invoice for each consignment instead of an invoice being issued for each wagon, the receipt agreeing with the invoice.

Invoices shall be sent forward by the Train which will arrive first at the destination of the Goods.

Division sheets and settlement of Accounts.

Clause 17.—The Audit Offices of the two Railways shall respectively exchange weekly division sheets for through Traffic. When the thirtieth of June and the thirty-first of December do not fall on Saturday, two returns shall be rendered, one for the period commencing from the first day of the last week to the end of the month, and another from the first day of the next month up to the end of the first week of that month.

Each Railway shall have in division its own rates and fares as quoted for through Traffic in accordance with the provisions of this agreement (except in the case of minima charges, which are to be divided in accordance with para. four of clause twelve) and each Railway shall account to the other for the charges on all inward through Traffic within not more than six weeks after the date the invoices pass the Dádar Junction Station.

A monthly settlement of accounts based upon the division sheets, bills and statements as rendered shall be made by transfer certificate, all errors brought to notice within six weeks after the close of the month in which they occur being adjusted in the accounts for the month following that in which they are brought to notice. If not brought to notice within the prescribed period such errors shall not be subsequently rectified.

Extension of Agreement to other Railways.

Clause 18.—The principle of this Agreement shall be considered as extended by each of the two Railways, parties to this Agreement, to any other Railway working in connection with it, the two Railways parties to this Agreement being responsible in all respects to each other for all Traffic and Stock sent through as if it were respectively Traffic to, or from, their own Lines, or Stock of their own.

Arbitration.

Clause 19.—All questions which may arise in carrying out this Agreement, or as to the construction of any part of this Agreement, or as to its application to any particular case, and upon which the Agents of the two Railways cannot agree, shall be settled by arbitration in some way to be agreed upon between the two Railways, but failing such agreement either Railway may, within not less than three, or more than six months, after notice given by either Railway to the other, appoint an arbitrator whose decision shall be final.

Confirmation.

Clause 20.—This Agreement is made subject to confirmation by the Boards of Directors of the respective Railways.

T. W. WOOD,
Agent, B. B. and C.I. Railway.

G. A. BARNETT,
Agent, G. I. P. Railway.

APPENDIX C.

CONTRACT.

BETWEEN THE SECRETARY OF STATE IN COUNCIL OF INDIA AND THE BOMBAY, BARODA AND CENTRAL INDIA RAILWAY COMPANY, AS TO THE MAINTENANCE, MANAGEMENT AND WORKING OF THE RAJPUTANA-MALWA RAILWAY BY THE COMPANY,—DATED 24TH SEPTEMBER 1884.

THIS INDENTURE made the 24th day of September 1884 between THE SECRETARY OF STATE IN COUNCIL OF INDIA, of the one part, and THE BOMBAY, BARODA AND CENTRAL INDIA RAILWAY COMPANY, incorporated by the Bombay Baroda and Central India Railway Act 1855 passed in the session of the 18th and 19th years of Her present Majesty and now incorporated under the provisions of the Bombay, Baroda and Central India Railway Act 1859 passed in the session of the 22nd and 23rd years of Her present Majesty, of the other part: WHEREAS by the Indian Guaranteed Railways Act 1879 the parties hereto are authorized and empowered to enter into contracts for the purposes hereinafter expressed. NOW THIS INDENTURE WITNESSETH and it is hereby agreed and declared as follows :—

INTERPRETATION OF TERMS.

1. In this Contract—

The expression "The Secretary of State" means The Secretary of State in Council of India.

The expression "The Company" means The Bombay, Baroda and Central India Railway Company.

The expression "The Bombay and Baroda Railway" means the railways worked by the Company on the 1st January 1885 and any alterations and additions that may from time to time during the continuance of this contract be made in or to the said railways by or with the sanction of the Secretary of State but not so as to include any railways or works comprised in "The Undertaking" as hereinafter defined.

The expression "The Rajputána-Málwa Railway" means the lines of railway extending from Khundwa on the Great Indian Peninsula Railway to Indore and Ajmere and from Sábarmati on the Bombay Baroda and Central India Railway to Ajmere Rewari Ferozepore Delhi and the transfer station at Agra on the left bank of the Jumna River and all branches thereof respectively except the branch from Achnera to Muttra.

The expression "The Undertaking" means the Rajputána-Málva Railway with any improvements alterations and additions of whatever description that may from time to time be made in or to the said railway by or with the sanction of the Secretary of State but with the exception of the telegraphs and telegraphic appliances used or to be used thereon: Provided always that if the railway from Rewari to Ferozepore including any extensions or branches thereof shall be re-transferred to the Secretary of State under the provision in that behalf hereinafter contained then as from the date of such re-transfer the expression "The Undertaking" shall not include the last-mentioned railway.

DURATION OF CONTRACT.

2. This Contract shall continue in force for a term of years commencing on the 1st of January 1885 and terminating on the 30th of June 1900, subject to the provisions hereinafter contained for determining the same.

AS TO THE UNDERTAKING TO BE TRANSFERRED TO THE COMPANY AND MATTERS CONNECTED THEREWITH.

3. On the 1st of January 1885 the Secretary of State shall hand over to the Company for the purposes of this contract the Rajputána-Málwa Railway together with all works connected therewith then made or in progress and the rolling stock plant and machinery then used thereon or appropriated or in course of construction therefor together with copies of all plans specifications and working drawings of the works rolling stock and other equipments but with the exception of the telegraphs and all telegraphic appliances belonging to the said railway which shall remain vested in the Secretary of State.

4. On the 1st of January 1885 or so soon thereafter as may be the Secretary of State shall deliver to the Company and the Company shall accept for the purposes of the under-

taking all stores belonging to the Rajputána-Málwa Railway that may be in hand or in course of delivery on the 1st January 1885 except such if any as belong to the telegraphs or telegraphic appliances.

5. As soon as may be after the 1st of January 1885 an inventory of the railways rolling stock plant and machinery to be so handed over as aforesaid as on the 1st of January 1885 shall be made and signed by or on behalf of the Secretary of State and the Company and the value of the same (including the land occupied or used by or for the purposes of the railways) at cost price as shown in the accounts of the Government shall be entered in the Capital Account of the undertaking as hereinafter provided.

AS TO TELEGRAPHS.

6. The Secretary of State may from time to time construct and provide such new or additional telegraphs and telegraphic appliances as he shall think fit along or upon the railways for the time being comprised in the undertaking or any part or parts thereof or any land or works belonging thereto and may maintain and work the existing telegraphs and telegraphic appliances and all or any of such new or additional telegraphs and telegraphic appliances as he shall think fit. And it shall be lawful for him from time to time to erect maintain make do and execute on any part of the said railways land or works all such buildings machinery works acts and things as he shall consider necessary or proper in relation to the maintenance construction use and working of the said existing and new or additional telegraphs and telegraphic appliances but so that due regard be had to the convenience of the working of the undertaking in respect of the time and place of such erections maintenance making and execution. The Company shall at all times furnish the Secretary of State with such free passes over all or any part of the railways comprised in the undertaking and over all or any part of the Bombay and Baroda Railway as he may require for persons employed by him in or about or in connection with the maintenance construction working or inspection of the said telegraphs and telegraphic appliances or any buildings or works appertaining thereto.

7. The Secretary of State shall from time to time allow the Company to have the exclusive use of such of the said telegraphs and telegraphic appliances as he shall from time to time consider proper to be used by the Company for the purpose of safely or efficiently working the Railways comprised in the undertaking and shall keep the same telegraphs and telegraphic appliances in good repair and in good working order and condition. And the Company shall upon demand pay into such Government Treasury in India as shall from time to time be appointed for the purpose by the secretary of State the amount which the Secretary of State shall from time to time require the Company to pay in respect of the charges made by the Government Telegraph Department for rent maintenance and inspection of the telegraphs and telegraphic appliances of which the Company shall for the time being be allowed to have the exclusive use. All amounts paid by the Company under this provision shall be included amongst working expenses.

8. The Company if so directed by the Secretary of State shall in working any telegraphs or telegraphic appliances of which they shall for the time being be allowed to have the exclusive use under the last preceding clause observe the rule as to working telegraphs and telegraphic appliances for the time being in force in the case of State Railway Telegraphs or such rules as the Secretary of State may from time to time prescribe for the Company's observance and if so directed by the Secretary of State shall account in such manner as shall be prescribed by the rules for the time being in force in the case of State Railway Telegraphs or as the Secretary of State shall require for the receipts derived from the working of telegraphs and telegraphic appliances.

AS TO THE RE-TRANSFER OF THE FEROZEPORE RAILWAY.

9. The Secretary of State may at any time by giving six months' previous notice in writing require the Company to re-transfer to him the railway from Rewari to Ferozepore including any extensions or branches thereof and the Company shall re-transfer the same accordingly with a reasonable proportion of the rolling stock plant and machinery and stores and shall not claim or be entitled to any compensation in respect of such re-transfer other than the sums to be credited to the Company in respect thereof as hereinafter provided. And as from the date of such re-transfer the rights of the Company with respect to the last mentioned railway and the telegraphs and telegraphic appliances used therewith shall absolutely cease and determine.

AS TO THE MAINTENANCE AND MANAGEMENT OF THE UNDERTAKING.

10. The Company shall keep the undertaking in good repair in good working condition and fully supplied with rolling stock plant and machinery to the satisfaction of the Secretary of State. If the Company shall fail for the space of one calendar month to comply with any requirement in writing of the Secretary of State in regard to the matters aforesaid or any of them the Secretary of State may enter on the undertaking and execute at the cost of the undertaking all such works and provide all such rolling stock plant and machinery as may in his opinion be required for the purposes of the undertaking.

11. The Company shall keep the rolling stock plant and machinery belonging to the undertaking in good repair and in good working condition to the satisfaction of the Secretary of State.

12. The Company shall maintain a sufficient staff for the purposes of the undertaking to the satisfaction of the Secretary of State and shall if required so to do by the Secretary of State continue all or any of the staff now engaged for the purposes of the Rajputána-Málwa Railway in their present employments the undertaking being charged with any contributions on account of pensions and furlough allowances which the Secretary of State may require such persons to pay and no such person unless now liable to be discharged by the Manager on his own responsibility shall be discharged from his employment by the Company if after notice of the intention of the Company so to discharge him the Secretary of State shall object to such discharge.

13. The Secretary of State may from time to time by notice in writing require the Company to carry out any alteration or improvement in the undertaking or any addition thereto that may in his opinion be necessary for the safety of passengers or for the safety of the public or for the effectual working of the undertaking. Such notice shall specify the alteration improvement or addition required and shall also in general terms describe the works to be executed for the purpose of carrying out such alteration improvement or addition. On receiving any such notice the Company shall with all reasonable speed commence and proceed to execute the works described therein. The Secretary of State shall provide any land that may be required for the purposes aforesaid and shall supply the funds necessary for the purchase of such land and for the execution of such works and the cost of such of the said works as shall be properly chargeable to capital shall be charged to him and of all other such works shall be charged against the undertaking as working expenses. If in any case the Company shall neglect to proceed with the proposed works or fail to complete the same to the satisfaction of the Secretary of State the Secretary of State may enter on the undertaking and execute the said works.

POLICE.

14. The Secretary of State shall provide and maintain for the purposes of the undertaking such a force of police as the Company with the approval of the Secretary of State shall from time to time require. And if the Secretary of State shall consider that any addition to the force is required for the preservation of law and order for the purposes of the undertaking his determination on that point shall be final and such addition shall be made accordingly. The cost of providing and maintaining the force of police required for the purposes aforeasid shall be defrayed in the following manner that is to say three-tenths shall be borne by the Secretary of State and the remaining seven-tenths shall be treated as part of the working expenses of the undertaking.

AS TO THE USE AND WORKING OF THE UNDERTAKING AND THE CONVEYANCE OF TRAFFIC.

15. The Company shall cause to be run so many trains at such times at such rates of speed between such places and with such conveniences and accommodations as the Secretary of State shall from time to time require.

16. The Secretary of State shall have power from time to time to fix and vary both maximum and minimum rates with a reasonable difference between them for the carriage of passengers and goods over the railways comprised in the undertaking and the rates and fares to be charged by the Company for the carriage of such passengers and goods shall not exceed the maximum and shall not be less than the minimum rates so fixed. And the Company in respect of all passengers and goods derived from or delivered to any railway comprised in the undertaking and which may be carried over the Bombay and Baroda Railway or any part thereof shall book through between all stations comprised in the undertaking and all stations on the Bombay and Baroda Railway and shall charge not more than the same mileage rates for the distance which such passengers and goods shall be carried over the Bombay and Baroda Railway or any part thereof as shall be charged on the railways comprised in the undertaking and all stores required for use on the Bombay and Baroda Railway or any part thereof and on the railways comprised in the undertaking or any part thereof shall be carried at the same mileage rates over the Bombay and Baroda Railway and over the railways comprised in the undertaking such rates not being less than the actual cost of conveyance.

17. The Secretary of State may from time to time require the Company to carry out any alteration or improvement in the working of the undertaking that may in his opinion be necessary for the safety of passengers or for the safety of the public or for the safe and effectual working of the undertaking.

18. All services which the Secretary of State shall require the Company to perform for the post office the military department the police department or any other department of the State or for high Government officials (including in such services the conveyance of mails as defined by the Post Office Act or Acts for the time being in force in India the conveyance of post office servants when on duty the conveyance of troops and sailors military and naval establishments horses and other animals used for military purposes guns military stores and equipments the conveyance of police prisoners and paupers the conveyance of telegraph stores instruments officers and workmen and of any public stores whatever)

shall be performed by the Company on the same general conditions as may for the time being be in force on State Railways and (subject to the provision as to free passes contained in the 6th Clause of this contract) at such rates as may be approved by the Secretary of State.

19. The Company shall convey gold and silver bullion and coin and copper coin belonging to the Government of India and the persons in charge thereof at special rates to be from time to time approved by the Secretary of State.

20. The Company shall from time to time upon the requisition of the Secretary of State give precedence over all other traffic to the demands of the Government.

AS TO RECEIPTS, PAYMENTS AND EXPENDITURE.

21. All moneys whatsoever which shall during the continuance of this contract be received by or on behalf of the Company in respect of the undertaking either in England or India or elsewhere (including all moneys received from the use and working of the telegraphs and telegraphic appliances of which the Company shall for the time being be allowed to have the exclusive use but excepting any moneys which shall be paid to the Company by the Secretary of State pursuant to this contract) shall at such times and in such manner as the Secretary of State may from time to time direct and without deduction be paid as to moneys received in England into the Bank of England to the credit of the Secretary of State and as to moneys received in India or elsewhere into some Government Treasury to be from time to time approved for the purpose by the Secretary of State.

22. Of the moneys mentioned in the last preceding clause and not the subject of the exception therein contained such as shall arise from the sale of any property on any occasion other than the replacement of the property sold by other property of the same or a similar character shall be treated as received on account of capital the residue shall be treated as reecived on account of revenue: Provided always that no sale of any property on any occasion other than such replacement as aforesaid shall be made without the sanction of the Secretary of State.

23. All moneys which the Company shall with the sanction of the Secretary of State require for the purposes of the undertaking shall be supplied to the Company by the Secretary of State according to such arrangements as shall from time to time be made between the Secretary of State and the Company.

24. All moneys expended by the Company on account of the undertaking and all other expenses of the Company in connection therewith shall from time to time be stated and submitted to the Secretary of State for his sanction and as between the Company and the Secretary of State shall be allowed only so far as the same shall from time to time have been sanctioned by the Secretary of State.

AS TO ACCOUNTS AND AUDIT.

25. The Company shall keep all such accounts relating to the undertaking and all such accounts as between the Company and the Secretary of State as the Secretary of State shall from time to time require and shall keep the accounts relating to the undertaking separate and distinct from the accounts relating to the Bombay and Baroda Railway. Such accounts shall be kept in such form and under such heads or divisions and for such sections of the undertaking and for such periods and with such details and shall be submitted to the Secretary of State at such times as he shall from time to time prescribe. The said accounts so far as the same are kept in India shall be kept in rupees of the Government of India and so far as they are kept in England shall be kept in sterling money. Such of the said accounts as are kept in England shall from time to time be transmitted by the Secretary of State to the Government of India and incorporated in the accounts of the Company in India each account transmitted being for the purpose of such incorporation converted into rupees at the average rate of exchange obtained by the Secretary of State for bills payable on demand drawn by him on India during the half-year immediately preceding that in which the incorporation is to be effected or if the Secretary of State shall not have drawn bills on India for so much as three months out of the half-year immediately preceding then at the average rate obtained during the half-year immediately preceding that in which the incorporation is to be effected for the best commercial bills payable on demand drawn in London on India such average rate to be decided by the Comptroller-General at Calcutta.

26. Unless and until otherwise directed the Company shall keep the following accounts:—

A Capital Advance Account;
A Capital Account;
A Revenue Account;
A Stores Account.

27. All moneys advanced by the Secretary of State to the Company shall be entered in the Capital Advance Account and shall from time to time as expended with the sanction of the Secretary of State be transferred therefrom to the Capital Account the Revenue

Account or the Stores Account as the case may require. And the balance of the Capital Advance Account shall be made up and submitted to the Secretary of State from time to time as he shall require.

28. In the Capital Account the following particulars shall be entered to debit and credit respectively (that is to say) :—

To Debit :—

(*a.*) The value at cost price as shown in the accounts of the Government of the railways rolling stock plant and machinery to be handed over to the Company as aforesaid.

(*b.*) The value as certified by the Secretary of State of all land provided by him after the 1st of January 1885 for the purposes of the undertaking.

(*c.*) All moneys which shall be actually expended by the Company with the sanction of the Secretary of State out of funds provided by him or by the Secretary of State upon works rolling stock plant or machinery the cost of which is chargeable to capital.

(*d.*) All such other sums (if any) as ought under the provisions of this contract to be entered to debit in the Capital Account.

And to Credit :—

(*e.*) All such of the moneys to be received by or on behalf of the Company as are herein provided to be treated as received on account of capital.

(*f.*) The value (to be determined by the Secretary of State) of any land of which the Company shall have been allowed to take possession for the purposes of this contract and which shall have been subsequently relinquished to ths Secretary of State under the 60th clause hereinafter contained.

And if the railway from Rewari to Ferozepore (hereinafter in this clause referred to as "the said Railway") and any extensions or branches thereof and any rolling stock plant or machinery shall be re-transferred to the Secretary of State under the provision in that behalf hereinbefore contained then as on the date of such re-transfer the following particulars shall be entered to credit in the Capital Account.

(*g.*) The value of the said Railway as on the 1st of January 1885 as entered in the Capital Account.

(*h.*) The value as entered in the Capital Account of the land (if any) which shall have been provided by the Secretary of State after the 1st of January 1885 for the purposes of the said railway or of any extensions or branches thereof and which shall be so re-transferred as aforesaid.

(*i.*) The moneys actually expended by the Company with the sanction of the Secretary of State out of funds provided by him or by the Secretary of State after the 1st of January 1885 upon works upon the said railway extensions or branches.

(*j.*) The value of the rolling stock plant and machinery so re-transferred to the Secretary of State as aforesaid such value to be agreed upon by the Secretary of State and the Company.

29. The Capital Account shall, from time to time as the Secretary of State shall require, be made up and the balance thereon ascertained and stated therein. The Secretary of State may from time to time audit the Capital Account and correct errors therein as he shall see fit.

30. The Revenue Account shall contain an account of all such of the moneys to be received by or on behalf of the Company as are herein provided to be treated as received on account of revenue or to be transferred to the Revenue Account and of all expenditure which ought conformably with this contract to be treated as made on account of revenue. The Revenue Account shall be made up half-yearly to the 30th of June and the 31st of December in each year or to such other days as the Secretary of State shall from time to time prescribe and shall be regularly submitted by the Company to the Secretary of State who may audit the same either concurrently with or after expenditure or in both ways as he may think fit and may in case of any error being discovered therein correct the same within three calendar months after the account containing such error shall have been submitted to him. Every Revenue Account shall be considered as settled at the expiration of three calendar months after the same shall have been submitted to the Secretary of State but nevertheless any error which may subsequently be discovered therein shall be corrected in the then next Revenue Account or in any subsequent revenue account or accounts as the Secretary of State may determine.

31. The Company shall on or before the 30th of June 1885 make up and deliver to the Secretary of State an account of all stores delivered to the Company as on the 1st of January 1885 and of the value of such stores the value being taken as entered in the accounts of the Government except in those cases if any in which a different value shall be

agreed upon by the Secretary of State and the Company. As soon as possible after the 30th of June and the 31st of December in each year or such other half-yearly days as the Secretary of State may from time to time prescribe for the making up of the Revenue Account the Company shall make up and deliver to the Secretary of State an account of all stores in hand on the half-yearly day immediately preceding the making up of the account and of all stores purchased and used respectively by the Company for the purposes of the undertaking since the 1st of January 1885 or since the date to which the Stores Account was last made up as the case may be showing the purposes for which such stores have been purchased or used. As often as any of the stores in hand shall be used by the Company for the purposes of the undertaking the value of the stores so used as entered in the books of the Company shall be charged to the Revenue Account or to the Capital Account as the case may require in accordance with the provisions in that behalf herein contained. If any stores for the time being in use upon or in connection with the railways comprised in the undertaking shall during the continuance of this contract be returned into store the value thereof (to be agreed upon by the Secretary of State and the Company) shall be debited in the Stores Account. If any stores shall be re-transferred to the Secretary of State under Clause 9 of this Contract the value thereof (to be agreed upon as aforesaid) shall be credited to the Stores Account.

32. The stores in hand shall from time to time be re-valued at such time or times as the Secretary of State shall direct and in such manner as shall from time to time be agreed upon by the Secretary of State and the Company and the value of the stores in hand as entered in the books of the Company shall be corrected in accordance with such re-valuation and all necessary adjustments shall be thereupon made by making entries to debit or credit in the Revenue Account as may be proper.

33. In the accounts aforesaid all general charges debitable partly against the undertaking and partly against the Bombay and Baroda Railway shall be divided between the undertaking and the Bombay and Baroda Railway in proportion to their respective gross earnings during the period for which such charges are debitable.

34. In case any question shall arise whether any expenditure incurred for the purposes of the undertaking is to be treated in the whole or in part as a charge incurred on Capital Account, or how the same is to be dealt with the question shall be determined on the general principle that capital is to bear the cost of new works of additional rolling stock plant and machinery and of substantial improvements of and additions to old works rolling stock plant and machinery including the cost of any temporary new work the construction of which is requisite for the construction of a work properly chargeable to capital and that the cost of repairs restorations renewals replacements and substitutions is to be borne by revenue. Provided nevertheless that any item of expenditure properly chargeable to capital in accordance with this principle shall from time to time if not exceeding 1,000 rupees and may from time to time at the absolute discretion of the Secretary of State if exceeding 1,000 rupees but not exceeding 2,000 rupees be charged to revenue but so nevertheless that the aggregate expenditure charged to revenue in any half year on account of such items as aforesaid exceeding 1,000 rupees but not exceeding 2,000 rupees shall not exceed 20 rupees per mile of railway for the time being open for traffic: Provided also that no portion of the salaries or allowances of any of the Company's permanent supervising staff although for the time being employed partly or wholly in directing or superintending work chargeable to capital shall except with the express sanction of the Secretary of State be charged to capital and that no expenses connected with the engagement from England or with the passage from or to England of any person in the Company's service shall be charged to capital unless such person shall have been specially engaged to carry out work chargeable to capital and actually employed upon such work.

35. If any difference shall arise between the Secretary of State and the Company as to whether any expenditure of the Company is properly chargeable to capital or revenue the matter in difference shall be referred to the decision of the joint Auditor if the Secretary of State and the Company shall have appointed such an officer but in case a joint Auditor shall not have been appointed then the matter in difference shall be referred for final decision to some person to be appointed by the Company and a Government Examiner of Railway Accounts or some other person to be named by the Secretary of State or in case of their being unable to agree to a referee to be named by them. The costs of any such reference shall unless the Secretary of State shall otherwise direct be treated as part of the working expenses of the undertaking.

36. The accounts of the Company in relation to its expenditure and receipts in India England and elsewhere shall from time to time be audited on behalf of the Secretary of State by such person or persons as he shall from time to time appoint as well as on behalf of the Company and the Company shall produce to the auditors or auditor so appointed by the Secretary of State all vouchers books accounts papers and documents of the Company necessary for the purpose of audit and afford to them or him all facilities requisite for the performance of their or his duties. Amongst the functions of the auditors or auditor shall be included the duty of seeing that expenditure is charged and revenue applied in accordance with the provisions of this Contract. Any correction made in the accounts by any person or persons who shall be acting as joint auditor or joint auditors on behalf both of the Secretary of State and of the Company shall be conclusive. If consequent on the

audit of any auditor acting exclusively on behalf of the Secretary of State the Secretary of State shall require any alterations to be made in the accounts and the Company shall object to alterations the matter in difference shall be referred for final decision to two persons one to be named by the Secretary of State and the other to be named by the Company and in case such two persons shall be unable to agree then to an umpire to be named by the referees. The necessary costs of any such reference as last aforesaid shall be included in working expenses.

AS TO THE WORKING EXPENSES AND THE APPLICATION OF THE RECEIPTS OF THE UNDERTAKING.

37. The working expenses of the undertaking shall be paid out of the gross receipts of the undertaking (including in such receipts all moneys received by the Company from the use and working of the telegraphs and telegraphic appliances provided for the Company under this contract) and shall so far as possible be borne by the gross receipts of the half-year to which such working expenses are properly attributable.

38. Working expenses shall include all costs and expenses incurred by the Company with the sanction of the Secretary of State in or about the maintenance management and working of the undertaking and all other sums if any proper to be allowed out of revenue in connection with the maintenance management or working of the undertaking or in connection with the conduct of the affairs of the Company and which shall be sanctioned by the Secretary of State.

In the working expenses of the undertaking there shall be reckoned—

(1.) Such portion of the general charges mentioned in the 33rd clause of this contract as are properly chargeable to revenue.

(2.) All expenditure incurred by the Company with the sanction of the Secretary of State or by the Secretary of State in keeping the undertaking in good repair and in good working condition and fully supplied with rolling stock plant and machinery except such part if any of such expenditure as may be charged to capital.

(3.) All expenditure incurred by the Company with the sanction of the Secretary of State in keeping the rolling stock plant and machinery belonging to the undertaking in good repair and in good working condition.

(4.) All expenditure incurred by the Company with the sanction of the Secretary of State or by the Secretary of State in the execution of any works chargeable to revenue.

(5.) So much of the cost of providing and maintaining a police force for the purposes of the undertaking as is not hereby agreed to be borne by the Secretary of State.

(6.) The costs of any reference that may arise on the audit of any of the accounts of the undertaking and the preparation of the returns and statistics mentioned in the 56th clause of this Contract and such of the costs of any reference under the 13th clause as the Secretary of State shall not direct to be otherwise treated.

(7.) Such sums as under the provisions of the 12th clause of this Contract ought to be charged against the undertaking.

(8.) Such sums as according to the rules for the time being in force of the State Railway Provident Institution now established shall from time to time be payable with the sanction of the Secretary of State to or for the purposes of that institution without being dependent or contingent on the amount of the net receipts of the undertaking.

(9.) The charges of the Government Telegraph Department for rent maintenance and inspection of the telegraphs and telegraphic appliances provided for the use of the Company.

(10.) Such a sum not exceeding in any half-year 40 rupees per mile of railway forming part of the undertaking for the time being open for traffic as may be required by the Secretary of State to cover the costs and charges of and incidental to the supervision audit and control of the Company in respect of the undertaking by the Secretary of State (being the sum hereinafter provided by Clause 52.)

(11.) All reasonable legal expenses whether incurred by the Secretary of State or with his sanction by the Company in connection with the undertaking and all such other expenses as the Secretary of State and the Company agree to treat as part of the working expenses of the undertaking.

39. The receipts of the undertaking in each half-year after deducting working expenses and all other charges to revenue account properly attributable to that half-year shall be applied in the following manner and in the followiug order :—

(1.) In payment of such sums (if any) as according to the rules for the time being in force of the State Railway Provident Institution hereinbefore mentioned shall from time to time be payable with the sanction of the Secretary of State to or for the purposes of that Institution and being contingent on the amount of the receipts of the undertaking which remain after the payments hereinbefore directed to be made thereout shall have been made.

(2.) In payment to the Secretary of State of the interest at 5 per cent. per annum on money standing to the debit of the Capital Advance Account and Capital Account and Stores Account respectively.

(3.) And the surplus (if any) shall be applied in manner following (that is to say) four-fifth parts thereof shall belong to the Secretary of State and one-fifth part thereof shall belong to the Company and shall as soon as ascertained be paid over to the Company in India.

If in any half-year the net receipts of the undertaking shall not be sufficient to meet the payments hereinbefore directed to be made thereout before the division of the surplus the deficiency shall be a charge upon the surplus net receipts of subsequent half-years and may be retained by the Secretary of State out of the surplus net receipts of any subsequent half-year or half-years before division of profits between the Secretary of State and the Company.

AS TO RUNNING POWERS AND OTHER FACILITIES AND ACCOMMODATION FOR OTHER RAILWAYS.

40. The Secretary of State may from time to time require the Company to allow the use of the railways forming part of the undertaking for the passage of engines and trains from or to other railways of the same gauge upon the payment of reasonable tolls and under reasonable conditions and restrictions.

41. The Secretary of State may from time to time require the Company to supply other railways with any of the rolling stock of the undertaking which shall not for the time being be required for the purposes thereof upon reasonable terms and conditions.

42. The Secretary of State may from time to time require the Company to execute work in the workshops of the undertaking in respect of rolling stock and machinery belonging to State railways at such reasonable prices and upon such terms as shall be agreed upon between the Secretary of State and the Company but so nevertheless as not to impede or unduly interfere with the ordinary operations of the Company in respect of the undertaking.

43. The Secretary of State may from time to time require the Company to make reasonable arrangements for the interchange of traffic and rolling stock between the undertaking and other railways and for through booking.

44. The Secretary of State may from time to time require the Company to allow the use of any of the stations forming part of the undertaking for the accommodation of the traffic of any railway belonging to any other Company or to the State or to any allied tributary or foreign State upon the payment of reasonable tolls and under reasonable conditions and restrictions and may also require the Company to make such alterations and additions as may in the opinion of the Secretary of State be necessary or convenient for the purposes of such accommodation upon such terms as may be agreed upon between the Secretary of State and the Company and may also require the Company to allow junctions to be formed between any of the railways forming part of the undertaking and railways belonging to any other Company or to the State or to any allied tributary or foreign State.

45. The Company shall if and when required so to do by the Secretary of State give all such facilities as he shall require for effecting an improved connection on the metre gauge between the undertaking and any railway in Káthiáwár.

46. Unless and until the Secretary of State shall otherwise direct the working arrangements now existing between the Secretary of State and the East Indian Railway Company as to the use of the Rajputana-Malwa Railway at and near Agra shall continue in force between the East Indian Railway Company and the Company.

AS TO THE CONSTRUCTION AND WORKING OF BRANCH OR OTHER RAILWAYS.

47. The Secretary of State may require the Company to construct any auxiliary or branch railway of the same gauge in connection with any railway comprised in the undertaking upon such terms and conditions as may in each case be agreed upon between the Secretary of State and the Company.

48. If the Secretary of State shall at any time or times before the determination of this contract give to the Company six months' notice in writing requiring them to work any line or lines of railway whether constructed by the Company or by or on behalf of the Government as branches or extensions of any of the railways comprised in the undertaking the Company shall accept and shall work such line or lines of railway from the expiration of the said notice and during the continuance of this contract provided (as to each such line of railway other than and except any railway connecting the undertaking with any railway in Káthiáwár) that the same does not exceed 50 miles in length and lies for the greater part in British territory and that the cost thereof has not exceeded Rs. 72,000 a mile exclusive of rolling stock. And the Company shall also accept and work upon terms to be specially agreed upon between the Secretary of State and the Company any line of railway constructed as aforesaid which shall exceed 50 miles in length or shall lie for the greater part in a Native State or shall have cost more than Rs. 72,000 a mile exclusive of rolling stock. And every line of railway so accepted and worked shall thenceforth be and form part of the undertaking and all the clauses and provisions herein contained shall be applicable thereto with such variations only (if any) as may be necessary to make them consistent with the terms to be specially agreed upon as last aforesaid or to be settled by arbitration as hereinafter mentioned.

49. If the Secretary of State shall at any time before the determination of this contract give to the Company three months' notice in writing requiring them to work the line of railway for the time being existing between Achnera and Muttra the Company will from the determination of the said notice and during the continuance of this contract work the said line of railway upon terms to be agreed upon between the Secretary of State and the Company. But except by express agreement between the Secretary of State and the Company the last-mentioned line of railway shall not form part of the undertaking and the working thereof shall not be included in this contract except so far as relates to the determination by arbitration (if the parties shall not agree) of the terms upon which it is to be worked.

50. The Company shall if and when required so to do by the Secretary of State accept and during the continuance of this contract work upon terms to be specially agreed upon in each case any lines of railway of the same gauge which may be constructed by or on beahlf of any allied tributary or foreign State in connection with any of the railways comprised in the undertaking but the lines of railway accepted and worked as last aforesaid shall not form part of the undertaking.

THE COMPANY TO COMPLY WITH THE REQUIREMENTS OF THE SECRETARY OF STATE.

51. The Company shall with all reasonable speed comply with all such requirements as the Secretary of State shall from time to time make in accordance with this contract.

AS TO THE SUPERVISION AND CONTROL OF THE SECRETARY OF STATE.

52. In all matters relating to the undertaking and not herein specially provided for the Company shall be subject to the supervision and control of the Secretary of State. The Secretary of State shall be entitled to charge half-yearly for his supervision audit and control of the Company such a sum as he shall think fit not exceeding the rate of forty rupees per mile of railway forming part of the undertaking for the time being open for traffic and such sum shall be charged to revenue.

53. For the purposes of inspecting the undertaking and auditing the accounts of the Company or otherwise exercising such supervision and control as are intended to be reserved to the Secretary of State by this contract the Secretary of State may from time to time appoint such person or persons as he may think proper with such powers as he may consider necessary or expedient and the Company shall afford every person so appointed all reasonable facilities for the purpose of enabling him to perform the duties entrusted to him by the Secretary of State.

54. The Company shall to the satisfaction of the Secretary of State record and keep in proper books full and particular accounts of all their transactions and proceedings including full and true minutes of all their meetings of Directors communications with India and correspondence in any way relating to or affecting the undertaking or the business thereof or any of the matters or things included or referred to in this contract so as at all times to exhibit fully and truly the state of their affairs in relation thereto and the Secretary of State or any person or persons appointed by him in that behalf shall at all reasonable times have free access to all the books accounts papers and documents of the Company relating to the undertaking with power to call for or make copies of or extract from the same.

55. The rights powers and privileges of the Government Director of the Company appointed or to be appointed by the Secretary of State under the provisions of the agreement made between the Secretary of State and the Company and dated the 2nd of February

1859 shall extend to and include the undertaking and all matters connected therewith. And the Secretary of State may from time to time as often as occasion shall require appoint a person to represent the Government Director at any meeting of the Board or at any committee meeting at which the Government Director may not be present and the person so appointed shall have all such rights and may exercise all such powers as the Government Director if present would have had or might have exercised not only with respect to the undertaking and all matters connected therewith but also with respect to all matters over which under the said agreement of the 2nd of February 1859 the rights and powers of the Government Director extend.

MISCELLANEOUS PROVISIONS.

56. The Company shall from time to time make such returns and furnish such statistics relating to the undertaking in such form and under such heads and divisions and with such details as the Secretary of State may from time to time require. The costs of preparing such returns and statistics and incidental thereto shall be treated as part of the working expenses of the undertaking.

57. No claim shall be made upon the Secretary of State by the Company for compensation in respect of the prejudicial effect upon the undertaking or the profits thereof of any Act of the Indian Legislature of general applicability for the time being in force. And the Company and the undertaking shall be subject to the provisions of every such Act and no claim shall be made upon the Secretary of State by the Company for compensation in respect of the prejudicial effect upon the undertaking of any treaty convention or agreement for the time being in force between the Secretary of State and the Government of any allied tributary or foreign State although such treaty convention or agreement may not be of general applicability. And the Company and the undertaking shall be subject to the provisions of every such treaty convention or agreement as mentioned in this clause.

58. The Company shall not acquire either absolutely or for any limited estate any land situate in the dominions of any allied tributary or foreign state, or any rights or easements in over or in respect of any land so situate. The expression "land" includes as regards the operation of this clause buildings lands and all other hereditaments of whatever description. This clause does not apply to any land of which possession may be given to the Company by the Secretary of State.

59. No communication or negotiation of any kind in respect of any matter whatever shall be made or conducted by or on behalf of the Company to or with the Government of any allied tributary or foreign state or with any officials of any such Government as last aforesaid except under the control of the Government of India and in such manner and under such rules as the Government of India shall from time to time direct in that behalf.

60. If in the opinion of the Secretary of State any land for the time being in the possession of the Company shall not be required for the purposes of the undertaking, the Secretary of State shall certify such opinion to the Company. Upon receipt of the said certificate or so soon thereafter as may be the Company shall state in writing whether they acquiesce in the opinion of the Secretary of State or whether they object thereto and if so the grounds of their objection. If no objection is stated by the Company or if the grounds of their objection if any are not in the opinion of the Secretary of State sufficient the Company shall upon the requisition of the Secretary of State go out of possession of the land in question and the Secretary of State shall be exclusively entitled to possession thereof.

61. The Company shall if required by the Secretary of State maintain and manage the State Railway Provident Institution for the benefit of the persons employed upon the undertaking upon such terms and under such rules and regulations as shall from time to time be approved by the Secretary of State.

62. Any notice direction requisition appointment certificate of opinion approval or sanction to be given or signified on the part of the Secretary of State for any of the purposes of this Contract shall be sufficient and binding if in writing signed by the Secretary of State or one of his Under Secretaries or by a Secretary of Government in India or by any other officer or servant duly authorised to act on behalf of the Secretary of State in respect of the matters to which the same shall relate and the Secretary of State shall not in any case be bound in respect of the matters aforesaid unless by some writing signed in the manner before mentioned.

63. The Company shall at all times during the continuance of this Contract keep an office established at Bombay and shall keep at the said office an authorised agent or committee of agency with whom the Secretary of State and the Government of India or other officer or officers deputed in that behalf may communicate on affairs concerning the undertaking and all drafts drawn and receipts given by the said agent or committee of agency or under his or their authority on behalf of the Company concerning the undertaking

and the affairs thereof shall be binding on the Company and every notice to be given to the Company other than any notice to be given under the 65th clause of this contract shall be sufficiently given if left at the said office or personally served on the said agent or any member of the said committee of agency or if given left or served according to the provisions of the said agreement of the 2nd of February 1859.

AS TO THE DETERMINATION OF THE CONTRACT.

64. Under or by virtue of an Indenture dated the 17th of November 1871 and made between the Secretary of State of the one part and the Company of the other part and the several Indentures and Act of Parliament therein recited or some or one of them the Company have power to surrender upon the terms and in the manner therein mentioned the railways and works in the said indentures respectively mentioned (being the railways and works of which the company are now in possession) and the Secretary of State has power in the events and upon the terms and in the manner in the said Indentures respectively mentioned to terminate the interests of the Company in the same railways and works and to assume possession thereof on behalf of Her Majesty and for the purposes of the Government of India. If the Company shall surrender the last mentioned railways and works or if the Secretary of State shall terminate the Company's interests therein and assume possession thereof under the powers aforesaid this Contract shall thereupon absolutely cease and determine but without prejudice to the rights of either party against the other in respect of any covenant herein contained which may have been previously broken.

65. If there shall be any breach on the part of the Company (whether by act or omission or default) of any of the stipulations or provisions of this Contract on the part of the Company to be performed or observed and the Company shall fail to remedy effectually any such breach as aforesaid within six calendar months after notice in writing to remedy the same shall have been given to the Company in England by the Secretary of State he may on or at any time after the expiration of the six calendar months last aforesaid determine this contract by giving to the Company in England notice in writing of such determination.

66. Upon the determination of this Contract under either of the two clauses lastly hereinbefore contained or by effluxion of time the Company shall give to the Secretary of State possession of the undertaking together with the rolling stock plant and machinery belonging thereto and all stores in hand or in course of delivery on the day of the determination of the Contract and all plans books surveys sections printings writings and documents whatsoever in anywise connected with the undertaking and all other property (if any) belonging or appertaining thereto and shall pay to him all moneys in their possession on account of the undertaking and after such possession shall have been given and after all moneys which under this contract shall have become payable to the Secretary of State shall have been duly paid the Secretary of State shall be bound to indemnify the Company their property and effects against all such debts and liabilities (if any) as they may have incurred with the sanction of the Secretary of State and which shall be then subsisting.

67. The moneys payable to the Company under Clause 39 shall not be deemed to be receipts of the Company as between the Secretary of State and the Company within the meaning of any Act or Contract.

ARBITRATION.

68. If the Secretary of State and the Company shall fail to agree touching any matter with respect to which their agreement is required by this Contract or if in any case not herein specially provided for any dispute question or controversy shall at any time arise between the Secretary of State and the Company touching these presents or any clause or thing herein contained or the construction hereof or any matter connected with these presents or the operation hereof or the rights duties or liabilities of either party in relation to the premises then and in every such case the matter as to which the Secretary of State and the Company shall fail to agree or the matter in difference as the case may be shall be referred to two arbitrators or their umpire pursuant to and so as with regard to the mode and consequences of the reference and in all other respects to conform to the provisions in that behalf contained in the Common Law Procedure Act 1854 or any subsisting statutory modification thereof and upon every such reference the arbitrators and umpires shall respectively have power to examine witnesses upon oath or affirmation and either to fix settle and determine the amount of costs of the reference and award respectively or incidental thereto to be paid by both parties or by either party or to direct the same to be taxed either as between solicitor and client or otherwise and to direct and award where and by and to whom such costs shall be paid and every or any such reference may be made a rule of Her Majesty's High Court of Justice or of the High Court of Judicature at Bombay on the application of the Secretary of State or of the Company and either the Secretary of State or the Company may instruct counsel to consent thereto for the other party.

IN WITNESS WHEREOF Sir Robert Montgomery K.C.B. G.C.S.I. and Sir Barrow Helbert Ellis K.C.S.I. being two Members of the Council of India have hereunto set their hands and

entral India Railway Company have hereunto caused their
nd year first above written.

ovenamed
Sir Barrow
of

R. MONTGOMERY.
B. H. ELLIS.

L.S.
L.S.

TREASURE,
India Office.

Bombay Baroda and
ay Company was here-
presence of

Seal of the Bombay Baroda and Central India Railway Company.

P. T. FRENCH, Chairman.

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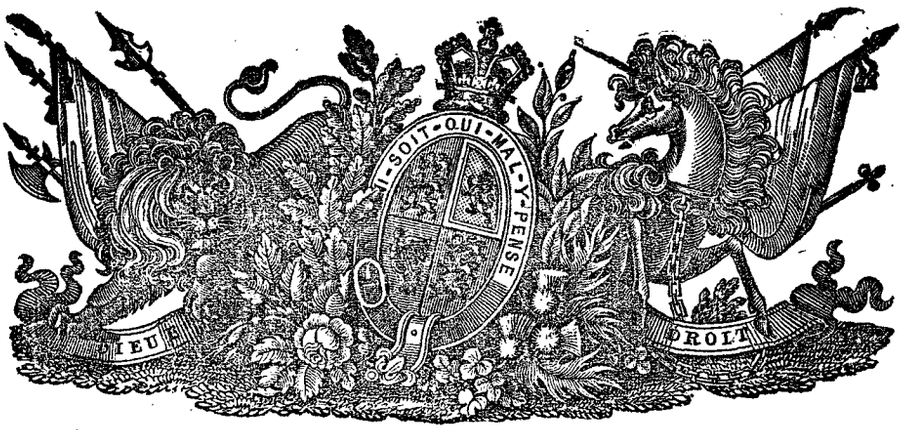

ADMINISTRATION REPORT

OF THE

RAILWAY DEPARTMENT,

ROYAL ASIATIC SOCIETY

BOMBAY PRESIDENCY,

FOR THE YEAR

1893-94.

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1894.

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ADMINISTRATION REPORT

OF THE

RAILWAYS UNDER THE GOVERNMENT OF BOMBAY FOR THE YEAR 1893-94.

The following tables give the lengths of the several lines of Railway under the control of the Government of Bombay during the year 1893-94. Table I shows the lines grouped according to gauge, and Table II according to classification :—

TABLE I.

Gauge.	Railway.	Open for Traffic for any part of the year.	Under construction.	Surveyed or under Survey.	Classification.
		Miles.	Miles.	Miles.	
5′ 6″	Great Indian Peninsula Railway ...	1,288¼	...	...	Guaranteed.
	Dhond and Manmad Railway ...	145½	...	...	State Imperial worked by Company.
	Khamgaon Railway	7½	...	...	Native State worked by Company.
	Amraoti Railway	5½	...	...	
	Wardha Coal Railway	45	...	...	State Imperial worked by Company.
	Bombay, Baroda and Central India Railway	438½	...	...	Guaranteed.
	Patri Railway	22¼	...	...	State Imperial worked by Company.
	Gaekwar's Petlad Railway	13½	...	...	Native State worked by Company.
	Godhra-Rutlam Railway	45	70½	...	State Imperial worked by Company.
	Rutlam-Muttra Railway	...	...	350	State Imperial to be worked by Company.
	Rutlam-Ujjain Railway	...	...	61	
	Tapti Valley Railway...	...	...	271	Guaranteed.
	Hyderabad-Umarkot Railway ...	59	...	19	State Provincial.
	Nadiad-Kapadvanj Railway ...	...	...	27	Do.
		2,070	70½	728	
Metre.	Southern Mahratta Railway (including Bellary-Kistna Railway) ...	1,043¾	...	...	State Imperial worked by Company.
	Kurnul Road-Kurnul Railway ...	...	...	32	
	Mysore Railway	296	...	...	
	Mysore-Nanjangud-Gudalur	15¼	...	54	Native State worked by Company.
	Guntakal-Mysore Frontier Railway ...	119½	...	...	State Imperial worked by Company.
	Yesvantpur-Mysore Frontier Railway	51½	...	...	Native State worked by Company.
	Rajputana-Malwa Railway	1,122¼	...	...	State Imperial worked by Company.
	Rewari-Ferozepore Railway	291	...	...	
	Cawnpore-Achnera Railway	260¾	...	...	
	Phalera-Rewari Railway	...	...	131½	
	Nusseerabad-Kekri Railway... ...	...	...	35½	
	Charki Dadri-Narnul-Railway ...	...	...	41¼	
	Palanpur-Deesa Railway*	17¼	...	...	
	Ahmedabad-Parantij Railway ...	...	...	47½	Private Company.
	Ahmedabad-Dholera Railway ...	...	...	78	Do.
	Bhavnagar-Gondal-Junagad-Porbandar Railway	333½	...	...	Native State.
	Jetalsar-Rajkot Railway	46¼	½	...	Do.
	Jamnagar Railway	...	...	70	Do.
	Palitana Railway	...	...	16½	Do.
	Gaekwar's Mehsana Railway ...	92¾	...	...	Native State worked by Company.
	Patan-Harij Railway	...	...	20	Do.
	Kolhapur Railway	29	...	...	Do.
		3,719	¼	526¼	
2′ 6″	Gaekwar's Dabhoi Railway	7¼	...	...	Native State worked by Company.
	Bahadarpur-Songir Railway ...	...	...	8½	Do.
	Baroda-Khakaria Railway	...	...	22	Do.
	Vishwamitri-Jambusar Railway ...	...	...	29	Do.
	Broach-Jambusar Railway	...	...	30	State Provincial.
	Morvi Railway	94	...	...	Native State.
	Rajpipla State Railway	...	...	40	
		165¾	...	129½	
	Grand Total ...	5,954¾	71	1,383¾	

* The Palanpur Darbar has contributed towards the cost.

TABLE II.

Railway.	Gauge.	OPEN FOR TRAFFIC-		UNDER CONSTRUCTION.		SURVEYED OR UNDER SURVEY.	
		Miles.	Total.	Miles.	Total.	Miles.	Total.
Guaranteed—							
Great Indian Peninsula Railway	Standard ...	1,288¼		...		...	
Bombay, Baroda and Central India Railway...	Do. ...	438½		...		...	
Tapti Valley Railway	Do. ...	...		...		271	
			1,726¾		...		271
State Imperial worked by Companies—							
Dhond and Manmad Railway	Standard ...	145¾		...		...	
Wardha Coal Railway	Do. ..	45		...		..	
Patri Railway	Do. ...	22¼		...		...	
Southern Mahratta Railway (including Bellary-Kistna Railway)	Metre ...	1,043¾		...		...	
Kurnul Road-Kurnul Railway	Do. ..	...		...		32	
Mysore Railway	Do. ...	296		...		...	
Guntakul-Mysore Frontier Railway ...	Do. ...	119½		...		...	
Rajputana-Malwa Railway...	Do. ...	1,122¼		...		...	
Rewari-Ferozepore Railway	Do. ...	291		...		...	
Charki Dadri-Narnul Railway	Do. ...	...		...		41¼	
Cawnpore-Achnera Railway	Do. ...	260¾		...			
Phalera-Rewari Railway	Do. ...	...		...		131½	
Nusseerabad-Kekri Railway	Do. ...	...		...		35½	
Palanpur-Deesa Railway	Do. ...	17¼		...		...	
Godhra-Rutlam Railway	Standard ...	45		70½		...	
Rutlam-Muttra Railway	Do. ...	...		...		350	
Rutlam-Ujjain Railway	Do. ...	...		...		61	
			3,408¼		70½		651¼
State Provincial—							
Hyderabad-Umarkot Railway	Standard ...	59		...		19	
Nadiad-Kapadvanj Railway	Do. ...	...		...		27	
Broach-Jambusar Railway...	2' 6"	...		...		30	
			59		...		76
Native State—							
Bhavnagar-Gondal-Junagad-Porbandar Railway	Metre ...	333½		...		...	
Jetalsar-Rajkot Railway	Do. ...	46½		½		...	
Jamnagar Railway	Do. ...	...		...		70	
Palitana Railway	Do. ...	...		...		16½	
Morvi Railway	2' 6"	94		...		...	
			474		½		86½
Native State worked by Companies—							
Khamgaon Railway...	Standard ...	7½		...		...	
Amraoti Railway	Do. ...	5½		...		...	
Gaekwar's Dabhoi Railway	2' 6"	71¾		...		...	
Bahadarpur-Songir Railway	Do. ...	...		...		8½	
Baroda-Khakaria Railway	Do. ...	...		...		22	
Vishwamitri-Jambusar Railway	Do. ...	...		...		29	
Gaekwar's Petlad Railway	Standard ...	13½		...		...	
Gaekwar's Mehsana Railway	Metre ...	92¾		...		...	
Patan-Harij Railway	Do. ...	...		...		20	
Kolhapur Railway	Do. ...	29		...			
Mysore-Nanjangud-Gudalur Railway ...	Do. ...	15½		...		54	
Yesvantpur-Mysore Frontier Railway ...	Do. ...	51½		...		...	
Rajpipla State Railway	2' 6"	...		...		40	
			286¾				173½
Private Companies—							
Ahmedabad-Dholera Railway	Metre ...	...		...		78	
Ahmedabad-Parantij Railway	Do. ...	...		...		47½	
			...				125½
			5,954¾		71		1,383¾

Chapter I.—General.

(For the official year 1893-94.)

Open mileage and extensions of line sanctioned.

The length of Railways under the control of the Government of Bombay sanctioned at the end of 1892-93 was 5,937¼ miles, of which 5,783 miles were open for traffic on the 31st March 1893. Of the open mileage 2,050 miles were on the 5' 6" gauge, 3,567¼ miles on the metre gauge, and 165¾ miles on the 2'6" gauge. Of the unopen mileage, which was under construction, 90½ miles were on the standard and 63¾ miles on the metre gauge. An additional length of about ½ mile was sanctioned during the year 1893-94 to carry the Jetalsar-Rajkot Railway (metre gauge) across the Agi river at Rajkot. The Southern Mahratta Railway Company took over the working of the remaining sections of the metre gauge line between Guntakul and Bangalore after they had been completed and opened, namely, the Dharmavaram-Hindupur Section, 49¼ miles, on 23rd

April 1893, and the Hindupur-Dodballapur Section, 38¾ miles (*viz.*, Hindpur to Mysore Frontier, 7¼ miles, and Dodballapur to Mysore Frontier, 31½ miles), on 17th September 1893. The following lengths were opened for traffic during 1893-94:—

	Miles.
Jetalsar to Rajkot (metre gauge) opened on 12th April 1893 ...	46½
Dharmavaram to Hindupur (metre gauge) opened on 23rd April 1893	49¼
Hindupur to Dodballapur (metre gauge) opened on the 17th September 1893	38¾
Palanpur to Deesa (metre gauge) opened on 25th November 1893 .	17¼
Limkhera to Dohad on the Godhra-Rutlam Railway (standard gauge), opened on 7th March 1894	20
	171¾

Accordingly on the 31st March 1894 the total length of lines open under the control of the Government of Bombay was 5,954¾ miles, (2,070 miles on the standard gauge, 3,719 miles on the metre gauge and 165¾ on the 2′6″ gauge); while a length of 70½ miles on the 5′6″ gauge, and ½ mile on the metre gauge, remained to be finished.

Important works completed and in progress.

On the *G. I. P. Railway* the quadrupling of the line between Nesbit Road and the north end of the new Byculla Station was completed during the year. The work of adding an eighth sleeper per 24-feet rail on the South-East Line between Poona and Raichur was completed. The work of strengthening old 30-feet girders in bridges and of providing an improved and uniform system of signalling arrangements on the whole of the Company's system was in progress; that of replacing the bowstring (Chini Creek) type girders on the North-East Line was commenced. Sanction was given to the substitution of Pintsch's patent system of oil gas lighting for the present system of oil lighting in carriages. New and improved station premises are under construction at Chinchpokli, Curry Road and Kurla. A new suburban station is being put in at Mazgaon, immediately north of Hancock Bridge. The work of fencing the Dhond and Manmad Railway was continued during the year, about 90 miles from Dhond being now finished, and that of renewing the sleepers on the Wardha Coal Railway was in progress.

On the *B. B. & C. I. Railway* the work of raising the rail level of the 60-feet Warren girder (Tapti, Ranip and Sabarmati) bridges was held in abeyance pending orders for the renewal or strengthening of that type of girders on the whole line. Orders have now been received that all the girders are to be replaced by new ones of a stronger type. The work of converting the simple vacuum brake on the coaching stock into the automatic brake was in progress; as also that of doubling the line between Baroda and Itola, a distance of 10·77 miles. Sanction was given towards the close of the year to the introduction of Pintsch's patent system of oil gas lighting in carriages. A new terminal station at Colaba with a re-arrangement of that station-yard, and an overbridge at the Falkland Road, north of Grant Road Station, were commenced during the year.

Of the *Godhra-Rutlam Railway* a further section was completed and opened during the year, namely, from Limkhera to Dohad, 20 miles, opened on 7th March 1894. On the unopen portion fair progress has been made with the works under construction. At the Anas Bridge good progress had been made. The Panchpiplia tunnel was nearing completion. At the Mahi Bridge the girders of six out of the eight spans were in position.

On the *Rajputana-Malwa Railway* fencing was in progress on different sections of the system. The work of fitting the coaching and goods stock with flexible buffers and screw couplings was proceeded with. The additional works at Delhi necessitated by the entry of the Delhi-Umballa-Kalka Railway were finally completed during the year. The rebuilding of the bridge over the Pushmavati river with four spans of 40 feet girders at mile 528 was completed during the year, the bridge being re-opened for traffic on 1st June 1893.

The *Palanpur-Deesa Railway* was completed during the year and was opened for passenger traffic on the 25th November 1893.

The *Southern Mahratta Railway* took over the working of two further sections of the direct line from Guntakul to Bangalore, as they were completed and opened, namely, the Dharmavaram-Hindupur Section on 23rd April and the Dodballapur-Hindupur Section on 17th September 1893. The work of providing additional water-ways on the Bellary-Kistna Railway was proceeded with. The Kistna Canal temporary terminal station was closed and dismantled and arrangements made to run trains across the Kistna Bridge in and out of Bezwada junction from 1st January 1894.

During the year the *Bhavnagar-Gondal-Junagad-Porbandar Railway* administration completed the Jetalsar-Rajkot branch, which was then opened for traffic on 12th April 1893. Sanction was given towards the close of the year to the prolongation of this line to the Morvi Railway terminus at Rajkot over a bridge across the Agi river, which is under construction. It is expected that this connection will be ready for use by the end of June 1894.

Principal events.

Among the principal events of the year may be mentioned the completion and opening for traffic of the Jetalsar-Rajkot and the Palanpur-Deesa Railways; the establishment of direct railway communication between Guntakul and Bangalore by the completion and opening of the intermediate portions from Dharmavaram to Hindupur and thence to Dodballapur; the completion and opening of the Limkhera-Dohad Section of the Godhra-Rutlam Railway; the completion of the surveys of the proposed Tapti Valley Railway; the cutting of the first sod by His Excellency the Governor of Bombay, in November 1893, of the proposed metre gauge line from Rajkot to Jamnagar; and the running of Southern Mahratta Railway trains over the Kistna Bridge at Bezwada from 1st January 1894.

Chapter II—Works completed and in progress.)

(*For the official year 1893-94.*)

G. I. P. Railway System—(*Standard Gauge*).

(Including the Dhond and Manmad, Khamgaon, Amraoti and Wardha Coal State Railways).

The new interlocking signalling arrangements at Victoria Terminus were nearly completed. The additional sidings, platforms, waiting-rooms, &c., in the passenger and goods-yards were also completed.

The interpolation of a new station to the north of Hancock Bridge at Mazgaon, between Masjid and Byculla, Stations, was sanctioned during the year, and the necessary works were in progress.

In connection with the new running shed for goods engines and alterations to the existing shed for passenger engines at Byculla, certain works were still in progress.

The quadrupling of $\frac{3}{4}$ths of a mile between Nesbit Lane and the north end of the new Byculla Station was completed.

The new station buildings at Chinchpokli and Curry Road were still under construction.

Work on a new station at Kurla to the north of the present station was commenced.

The cylinders of the bridge over the Mumbra Creek, at mile 25·10, are being cased with others of cast-iron of 3 feet greater diameter, the space between being filled in with cement concrete.

The fixing of new transoms on the Ehegaon Viaduct, on the Thull Ghat, was completed; also the painting of the Tapti Bridge at mile 279, North-East line.

The rebuilding of the 10-feet arch at mileage 94·23, North-East line, was completed during the year.

GREAT INDIAN PENINSULA RAILWAY COMPANY.

A bungalow for the European Medical Officer at Igatpuri was under construction.

The new tank-house and pipes and a shed for pumps and quarters for pumpers at Niphad were finished.

The re-construction of the Kareli Bridge, mile 552·38, and the Singla Bridge mile 531·31, North-East line, consisting each of a single span of 100 feet bowstring girders, were commenced; the approach roads of the diversions were practically finished, and the temporary bridges were well in hand.

Two permanent loop lines and two temporary block stations are being provided between Kirkian and Palasner.

The new foot overbridge at Lonavla, referred to in last year's report, was completed. A horse and carriage dock and siding have been provided at the same station.

The third-class waiting hall at Poona is being enlarged.

The new refreshment, waiting and retiring rooms at Barsi Road Station were finished.

The work of strengthening the road on the South-East line between Poona and Raichur by the addition of an eighth sleeper per 24 feet rail was completed during the year.

The water tank at Sholapur has been raised, the rooms under it being intended for an office for the Assistant Locomotive Superintendent.

The work of strengthening the old 30-feet girder bridges was taken in hand and was in full swing at the end of the year, over 60 out of the 430 girders of this description having already been strengthened and replaced.

A considerable length of wire-fencing was erected during the year under report.

Considerable progress was made in the work of replacing the 69-lb. iron rails by 82-lb. steel rails.

The introduction of the new system of out-door signals throughout the system was proceeded with. The new system is already in operation on the North-East line as far as Harda; on the South-East line, up to, but not including, Sholapur; and between Bhusaval and Shegaon on the Nagpur Branch.

Great progress was made during the year with the work of fitting the automatic vacuum brake to the passenger stock and screw couplings to the goods stock.

The experiment of lighting carriages with gas on Pintsh's patent system having proved a success, sanction was given during the year to the general use of the system. A few carriages have already been fitted with the necessary apparatus.

On the *Dhond and Manmad Railway* the principal work in progress during the year was the erection of fencing, of which about 90 miles from Dhond are now up.

On the *Wardha Coal Railway* the renewal of sleepers was proceeded with at the rate agreed upon, *viz.* 6,294 per year.

B. B. & C. I. Railway—(*Standard Gauge.*)

The Railway Company are building a new terminal station at Colaba with a re-arrangement of the station-yard. The work was put in hand during the year under report, and will probably be finished by December 1894.

Work was commenced during the year on an overbridge to carry the Falkland Road over the Railway north of Grant Road Station; it is expected to be ready for use by the end of July 1894.

The work of strengthening two piers of the south Vaiturni Bridge and one pier of the north Vaiturni Bridge was in progress. A dry rubble retaining wall to protect the bank between the two bridges was completed.

Quarters for the Station Master and Deputy Station Master were being built at Amroli.

A siding was under construction from Anklesvar station-yard to a ginning factory. Similar sidings to cotton presses have been put in at Palej and Miyagaum.

Crossing stations have been provided at Vedcha (mile 143-44), Kosumba (mile 186-87), Lakodra (mile 223-24), Bajuva (mile 252), Navli (mile 265-66) and Boriavi (mile 274).

The work of doubling the line between Baroda and Itola was commenced during the year; some six miles of earth-work out of the 10·77, had been completed.

Additional siding accommodation is being provided at Anand Junction.

The works at Viramgam to admit the metre gauge line from Mehsana were completed during the year.

The work of providing an improved water-supply at certain stations has been completed. Sanction has since been given to a further aditional supply at Virar and the work is in progress.

A pile of the Par Bridge and the north abutments of the Auranga and Caveri Bridges were damaged by the monsoon of 1892; the former has been replaced and the latter repaired.

A girder span of 60 feet has been added to the Vokla Bridge on the Patri Branch.

On the Patri Branch several new sidings are being put in at Kharaghoda to allow the Salt Department to open up new salt pans in order to meet the demand caused by the partial failure of Sambhar salt.

Sanction was given during the year to the substitution of Pintsch's patent system of oil gas lighting in carriages for the present system of oil lighting, the experiments made with the former having proved satisfactory.

The work of fitting goods wagons with screw couplings was proceeded with during the year; as also that of converting the simple vacuum brake of the coaching stock to the automatic type.

Gaekwar's Railways.

Gaekwar's Petlad Railway (standard gauge).—No new works of any importance were carried out during the year on this line, but 18 gate-lodges were in course of provision.

Gaekwar's Dabhoi Railway (2′ 6″ gauge).—On this line waiting rooms are being provided at Dabhoi, Chandod and Bahadarpur, and waiting sheds at Ten Talav and Goya Gate. At the latter station a palisade is being erected round the platform to keep under control the large crowds on certain days in the month on which there is a local pilgrimage.

At Karvan Station an additional siding was put in during the year.

Work was commenced on the erection of a telegraph line between Dabhoi and Bodeli.

Gaekwar's Mehsana Railway (metre gauge):—Additional staff quarters were provided during the year at Vadnagar, Randala, Visnagar and Kheralu.

At Patan an additional siding has been given and the length of the original goods-shed and goods platform doubled.

The demarcation of the land on all the three sections was completed during the year.

A telegraph wire was erected during the year on the Mehsana-Kheralu Section.

The Motipura Bridge on the Kheralu Branch was again damaged by floods on the 22nd June 1893. The work of repairing the damage and adding another span of 60 feet girders to the south end of the bridge was commenced towards the end of the year under report.

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RAJPUTANA-MALWA RAILWAY SYSTEM—(*Metre gauge*).

Considerable renewals of rails and sleepers were carried out during the year on different portions of the line.

At Ajmere the following works were carried out:—Provision of hydrants for water-supply at the station; racks for storage of material in the General Store, and barbed wire fencing round the Locomotive yard.

A cotton press siding was put in at Hindaun Road and additional accommodation was given at Agra Fort Station for broad gauge working.

The additional siding and ashpits at Kasganj were completed.

A siding has been run out to a cotton press erected at Jaora.

The new water-supply arrangements at Dhangarva and Sidhpur were completed, also a tank to hold 40,000 gallons of water at Sendra.

At Abu Road the following works were in progress:—Four quarters for drivers and 24 units of locomotive menials' quarters; Railway Institute; and an additional armoury at the Sergeant Instructor's quarters, which was nearly completed at the end of the year.

At Sabarmati a low-level tank to hold 30,000 gallons of water required for watering purposes was being constructed; a new tank is also being provided at Mori.

A goods transhipment platform and siding have been constructed at Marwar Junction.

A new running room has been built at Sojat Road Station.

At Bandikui, quarters for the Police have been built, and two additional sidings have been laid parallel to the workshop.

At Delhi the additional works at the passenger station necessitated by the entry of the Delhi-Umballa-Kalka Railway have been finally completed by the opening of the fourth coaching line. The palisade fencing at the Lahore Gate Station yard was finished; also the platform wall on the city side at this station. Forty new quarters for locomotive menials have been built as also five new quarters for native drivers.

An additional goods platform and sidings are being constructed at Hathras City Station.

At Cawnpore a new siding between the inward and outward goods-sheds is being constructed; and the prolongation of a siding into the interior of the transhipment shed is in hand.

Considerable lengths of fencing were erected during the year on different parts of the Railway. The fencing of the line between Muttra and Hathras Road and between Farakhabad and Fategarh was in progress.

Alterations and improvements have been made in the watering arrangements at Gurshaiganj, Jasoda, Araul, Bilhaur, Bararajpur and Mandhana.

A flag-station has been opened at Dhaulsalar between Utripura and Bilhaur stations.

The three double units of staff quarters for drivers at Mhow were still under construction.

The work of improving the alignment of the Railway between Fatehabad and Indore was continued during the year.

Sanction to the construction of two new bridges, each of four spans of 22-ft. girders, at miles $\frac{42}{4}$ and $\frac{42}{12}$, between Jataoli and Khalilpur stations, where the line was breached in July 1893, was given in February 1894. The work is in hand and will be completed before the next monsoon.

The rebuilding of the bridge over the Pushmavati river with four spans of 40-ft. girders, at mile 528 was completed during the year, the bridge being re-opened for traffic on the 1st June 1893.

Considerable progress was made in the work of fitting the rolling stock with flexible buffers and screw couplings. The construction of a dynamometer car was completed during the year.

Palanpur-Deesa Railway.—This line, 17¼ miles, was completed during the year and opened for public traffic on the 25th November 1893. It is worked by the B. B. & C. I. Railway Company as a branch of the Rajputana-Malwa Railway.

GODHRA-RUTLAM RAILWAY—(*Standard gauge*).

On the open portion of the line from Godhra to Limkhera, 25 miles, several works, which were not completed at the date of opening, such as gate lodges, palisade fencing at stations, the goods platform at Limkhera, &c., were in progress during the year.

A further section of this Railway was completed and opened for traffic on the 7th March 1894. This is from Limkhera to Dohad, 20 miles.

On the remaining portion of the Dohad Division work was well forward at the end of the year. Rails had been laid on considerable lengths of the section. At the 47th mile, the Kan Bridge, four spans of 60-feet girders, had been completed. At the Anas Bridge good progress had been made.

On the Rutlam Division also the work made fair progress during the year. At the Panchpiplia tunnel the lining of the inside walls was nearly completed; the arching was finished for a length of over 80 feet. Dressing to full section in the unlined portion was well in hand.

Fair progress had been made with the bridge work. At the Mahi Bridge girder erection had been completed on six out of the eight spans.

The principal obstacles to opening are the heavy cuttings at miles 10 and 34 on the Rutlam Division. The first is making good progress; but at the latter labour had very much fallen off towards the end of the year. The cutting at mile 34 will, if necessary, be temporarily avoided by a diversion with a short grade of 1 in 80.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre gauge.*)

(Including all the lines worked by the Southern Mahratta Railway Company).

The unopen portions of the Railway between Bangalore and Guntakul were completed and opened during the year, the different lengths as opened being handed over to the Southern Mahratta Railway Company for working. The line from Guntakul to the Mysore Frontier (119½ miles) was constructed by the agency of the South Indian Railway, and the portion within Mysore territory (Yesvantapur to the frontier, 51½ miles) by the Mysore State.

The length from Dharmavaram to Hindupur, 49¼ miles, was opened for traffic on the 23rd April 1893; and the Dodballapur-Hindupur Section, 38¾ miles, on the 17th September 1893.

The following were the principal works completed or in progress during the year on the open lines of the Southern Mahratta Railway system.

Main Line.—The construction of the sidings, platform and shed undertaken for the Customs Department at Castle Rock was proceeded with during the year.

The works in connection with the supply of water to the town and the Railway workshops, &c., at Hubli were nearly completed and pipes are being laid to the different premises and staff quarters. The work is being carried out by the Irrigation Department. The construction of the Railway reservoir with necessary connections for the workshops and the Railway colony was in progress. Carriage-examining pits were finished. A shed for storing plate and sheet iron was under erection; and a shed for repairs of tenders was commenced. The following other works were also commenced at Hubli:—Bungalows for Inspector of Works and Depôt Storekeeper; engine pits in the workshop; and coal sidings.

MAP
OF THE
SOUTHERN MAHRATTA RAILWAY
AND ADJACENT LINES
Scale of 64 Miles to an Inch
AGENT
CHIEF ENGINEER
CHIEF DRAFTSMAN
REFERENCES.
S.M.R. & W.I.P. lines open
Do. Proposed
Other Metre Gauge lines open
Do. Proposed
Broad Gauge lines open
Do. Proposed
KHANDWA
BHUSAWAL
JALAM
AMRAOTI
NAGPUR
SUNDRA
RAIPUR
DHULIA
KHANGAON
BADNAIR
WARDHA
CHALISGAON
MANMAR
WARORA
CHANDA
PANAVAR
RAIKNER
KALYAN
BOMBAY
MULAPUR
ALIBAG
POONA
DHOND
MYLARUM
BARSI ROAD
KAZIPET
ANJANWEL
CHIPLUNI
HOTGI
SECUNDERABAD
HYDERABAD
RATNAGIRI
WADI
MIRAJ
KOLHAPUR
BEZVADA
MASULIPATAM
RAICHUR
MORMUGAO
CASTLE ROCK
GOA
HUBLI
GADAG
CUNTAKAL
KARWAR
KUMTA
HARIHAR
DHARMAVARAM
NELLORE
MADRAS
ARKONAM
MANGALORE
BANGALORE
CHINGLEPUT
JALLARPET
MYSORE
NANJANGUD
VILLUPURAM
PONDICHERRY
SALEM
PORTONOVO
CALICUT
METTUPALAIYAM
ERODE
BEYPORE
MAYAVARAM
PODANUR
TRICHINOPOLY
TANJORE
NEGAPATAM
DINDIGUL
MUTUPET
COCHIN
MADURA
QUILON
MANIYACHI
TUTICORIN
TRIVANDRUM
TINNEVELY

The Assistant Station Masters' quarters at Dundur and Annigeri were finished.

Work was in progress at Gadag on a transhipping goods platform and extension of loading platform as well as water-supply to staff quarters.

Assistant Station Master's quarters with a store-room have been built at Gadiganur.

A dead end siding has been put in at Tornagallu.

At Bellary 22 units of menials' quarters were in progress.

At Guntakul a bogie weigh-bridge and house were completed. An over-bridge at the east end of the station with approach road is under construction. The following works were also commenced at Guntakul:—quarters for the Locomotive and Traffic staff, a transhipping platform and a siding for coal.

Watering arrangements were completed at Donakonda and Santamagalur; at the former place additional staff quarters for the Locomotive and Traffic Departments were commenced.

The waiting-shed at Vinukonda has been enlarged and a palisade fence put round the platform.

The work of raising and fencing the passenger platforms was put in hand at Narasaravupet and Mangalagiri; at the former place also a Permanent Way Inspector's bungalow was completed.

At Tadepalli fuel stages have been erected and the ground levelled.

The temporary sidings, station and buildings at the Kistna Canal have been dismantled and the bund on which they stood restored and handed back to the Canal authorities. The main line now joins the East Coast Railway at a point east of Tadepalli Station and from 1st January 1894 metre gauge trains have been worked in and out of Bezwada junction over the Kistna Bridge, which is provided with a mixed gauge track.

The work of putting in additional waterways between Nandyal and Rungapuram was practically finished. The additional waterways at miles $\frac{256}{2}$, 376, $\frac{468}{5}$, $\frac{474}{3}$ and $\frac{475}{5}$ were well in hand.

The full section of ballast has been spread from Cumbum to Gundlakama.

The resurvey of the land of the Guntakul-Bezwada Section, with a view to demarcating permanent and relinquishing temporary land, was completed during the year.

The length between Mugad and Alnavar was found to require heavy sleeper renewals. Re-sleepering throughout the section was partly completed during the year.

Bijapur Branch.—The Permanent Way Inspector's bungalow at Bijapur was completed.

A booking office and latrine are being built at Lachyan.

The weather side of the transhipping shed at Hotgi has been closed in.

Poona Branch.—A locomotive foreman's bungalow is being built at Ghorpuri.

A 20-feet girder bridge has been constructed in the station yard at Walhe. At the same station quarters are being constructed for the fuel clerk and locomotive menials.

A permanent station was commenced at Nira trial station.

The Permanent Way Inspector's bungaow at Ashta Road has been finished.

At Shedbal work was in progress on an extension of the siding, loading bank and platform.

A goods-shed with siding has been commenced at Kudchi.

At Dhupdal a goods-shed and approach road have been made and the sidings extended.

Additional goods accommodation is being provided at Belgaum.

A goods-shed and quarters for the Assistant Station Master have been completed at Khanapur.

Heavy sleeper renewals have been carried out between Belgaum and Sulebhavi stations, a distance of 6 miles, where teak sleepers have been replaced by steel, and on the Salpa and Alandi Ghats, where the Australian 'Khári' wood sleepers, laid in 1886, had to be replaced by teak sleepers.

The enlargement of the bridge at mile $\frac{194}{7}$ was in progress.

Kolhapur Railway.—Protective works for the embankment of the Udgaon Bridge were commenced during the year. Pitching at the banks of the Kistna and Panchganga rivers was about $\frac{2}{3}$rd completed.

Harihar Branch.—The Station Master's quarters and the parcels room at Haveri were completed.

At Ranebennur the quarters for the Permanent Way Inspector and the Assistant Station Master were finished.

Mysore Railway.—The erection of boundary marks between Harihar and Gubbi was commenced during the year.

At Harihar an engine-shed and sidings are being constructed.

Goods-sheds and sidings were being provided at Devangere, Holalkeri, Gubbi and Maddur. Additional goods-shed accommodation is also being given at Davangere.

The goods-shed, ashpit and horse and carriage dock at Kadur were completed during the year.

The work of enlarging the goods-shed at Tiptur is in hand.

The Permanent Way Inspector's bungalow at Tumkur was finished.

Watering arrangements for the staff quarters at Dodbele were in progress.

At Bangalore additional sidings were put in during the year, one in the station-yard and one in the goods yard; another siding in the goods-yard was also commenced. Additions and alterations to the workshops were in progress.

The following works were commenced at Mudgere:—extension of sidings and latrines for natives.

Renewals of the pine sleepers by teak on the older portions of the line were continued for 9 months of the year, but had to be stopped after that on account of the failure of the contractor and difficulty in getting a supply of teak sleepers.

During the year the following works on the Guntakul-Mysore Frontier Section were nearly completed:—a recreation room at Dharmavaram; and ashpits, water columns, tank-houses and pumps with piping at Khadarpet and Anantapur.

A wagon weigh-bridge and coal stage were in progress at Dharmavaram.

The work of raising the rails of the girder bridges between Guntakul and Dharmavaram was finished during the year.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre gauge*).

The work of renewing the old sleepers in the road was proceeded with during the year.

About nine lakhs of cubic feet of stone ballast was spread on different parts of the line during 1893.

Five sets of gangmen's quarters were added on the Wadhwan-Bhavnagar Section; 13 sets on the Dhola-Porbandar Section; and 12 sets on the Jetalsar-Verawal Section.

A temporary experimental well for providing water for the stationary boiler at Ghadechi has been sunk in the bed of the river near the workshops. A carriage-shed has been erected at Ghadechi.

RAILWAYS IN KATHIAWAR
Scale of Miles.
10 5 0 10 20 30 40 50 60
GULF OF KUTCH
LITTLE RANN
GULF OF CAMBAY
DHRÁNGADRA
HALVAD
JHALAVAD
MACHU KANTHA
HÁLÁR
OKHAMANDAL
DWÁRKA Cantonment
PORBANDAR
JUNAGAD
GONDAL
RAJKOT
JODHPUR
JAM JODHPUR
PANELI MOTI
BHAYAVADAR
KHAKHI JALIA
VIRPUR
JETALSAR
JETPUR
VADAL
SUPEDI
DHORAJI
CHOKI
VANSJALIA
UPLETA
RANAVAV
SAKHPUR
BARDA CHOKI
KUTIYÁNA
VARASARA
KANDORNA
ADODAR
NAVIBANDAR
MYARI
BÁLÁGÁM
MADHAVPUR
SHIL
MÁNGROL
CHORVAR
CHORVAD ROAD
VERAVAL PATAN
MALIA
KESHOD
LUSHALA
MENDARDA
SHAHAPUR
BHILKA
VANTHLI
BÁNTVA
KHAKHARIA
VAVDI
KUNKAVAV
RAFALIA
AMRELI
BAGASRA
MÁNEKVADA
Pol Agency S.D.
DHÁRI
Cantonment
SARSÁI
GADHIA
NEDAN
BABRIAVAR
VÁNKIA
RÁJULA
LÁKHAPADAR
GADHADA
KUNDLA
KUNTÁSRA
MOVA
SHIALI
JAFARABAD
DELVÁRA
UNA
KODINÁR
CHARA
DIU Portuguese Settlement
DHOLA
UJALVAV
NINGALA
BOTAD
KUNDLA
RANPUR
CHUDA
LIMBDI
WADHWAN
KUKDA
MULI
SAYLA ROAD
DOLIA
VANKANER
DALADI
THAN ROAD
MORVI
BRUVA
SINDHAVADAR
HADMATIA
PARDHARI
WANTHALI
ALIABADA
NAVANAGAR
BED
JHAKAR
SALAYA
KHAMBHALIYA
DHROL
JAMNAGAR
JODIYA
KHUNPOR
TANKÁRA
LATIPUR
BÁLÁMBA
AMBRAU
VÁVANIA
MÚLIU
TIKAR
KHIRÁGHODA
DASÁDA
PÁTRI
BAJÁNA
VITHALGAD
SITHA
KHORU
SARA
CHARÁDVA
KODH
TALSANA
NAL BAOLI
SAYLA
LIMBDI
CHUDA
BHOIKA
RANPUR
DHANDHUKA
KUNDLA
BOTAD
BARVALA
DHOLERA
NINGALA
SHUNAGAR
UJALVAV
VALA
CHAMARDI
JHAVNANAR
GADECHI
KARTEJ
SIHOR
SONPURI
GOGHA
SANOSRA
SONGAD
DÁNNAGAR
JALIA
DHRASA
LATHI
CHIKAL
SUNDHAR
NOGHANVADAR
GURIADHAR
TEMSA
PÁLITÁNA
CHOK
TALAJA
DÁTHA
GOPNÁTH
MOVA
RÁJULA
NEDAN
KUNTÁSRA
GADHADA
LÁKHAPADAR
SHETRUNJI R.
MÁNEKVADA
BHILKA
VÁNKIA
SHIALI
JAFARABAD
DELVÁRA
UNA
KODINÁR
CHARA
DIU
BÁBRA
KATRA PITA
GADHÁRA
VASÁVAD
JUSDAN
BHADLI
NINGÁLA
ATKOT
SARÁHUR
MENGNI
LODHIKA
KULÁVAR
SARAPÁDAR
LALPUR
AMBARDI
PADÁRA
HARMATIA
BURNANDOR
KUVÁRVA
HADMATIA
KHORANA
CHOTILA
SUDÁMPUR
DÁNDULPUR
PÚLIYÁD
AMANDPUR
VICHIU
HADÁLA
SAYLA
MORVI
MÚLIU
VÁVANIA
AMBRAU
BÁLÁMBA
JODIYA
KHUNPOR
TANKÁRA
LATIPUR
BÁLÁCHARI
DHROL
NAVANAGAR
ALIABADA
BED
JHAKAR
SALAYA
KHAMBHALIYA
PADÁRA
HARMATIA
SARAPÁDAR
LALPUR
KULÁVAR
LODHIKA
MENGNI
SARÁHUR
ATKOT
GONDAL
RAJKOT
RIBDA
PARDHARI
WANTHALI
HADMATIA
KHORANA
BURNANDOR
KUVÁRVA
HADÁLA
SAYLA
DOLIA
VANKANER
DALADI
THAN ROAD
KUKDA
MULI
SAYLA ROAD
WADHWAN
LIMBDI
CHUDA
BHOIKA
RANPUR
KUNDLA
BOTAD
NINGALA
UJALVAV
DHOLA
SANOSRA
SONGAD
DÁNNAGAR
JALIA
DHRASA
LATHI
CHIKAL
SUNDHAR
JAMNAGAR
JODHPUR
JODIYA
KHUNPOR
TANKÁRA
LATIPUR
BÁLÁCHARI
DHROL
NAVANAGAR
ALIABADA
BED
JHAKAR
SALAYA
KHAMBHALIYA
PADÁRA
HARMATIA
SARAPÁDAR
LALPUR
KULÁVAR
LODHIKA
MENGNI
SARÁHUR
ATKOT
GONDAL
RAJKOT
RIBDA
PARDHARI
WANTHALI
HADMATIA
KHORANA
BURNANDOR
KUVÁRVA
HADÁLA
SAYLA
DOLIA
VANKANER
DALADI
THAN ROAD
KUKDA
MULI
SAYLA ROAD
WADHWAN
LIMBDI
CHUDA
BHOIKA
RANPUR
KUNDLA
BOTAD
NINGALA
UJALVAV
DHOLA
SANOSRA
SONGAD
DÁNNAGAR
JALIA
DHRASA
LATHI
CHIKAL
SUNDHAR
B.G.J.P.R.Y. Open line
Jamnagar R.Y. Under Survey
Morvi R.Y. Open line
Govt. Photozinco. Office, Poona. 1894

At Dhasa the new permanent station was completed during the year and opened for traffic.

The cemetery at Jetalsar was completed; and the fencing of compounds of staff quarters and station platform was nearly finished.

This railway suffered severely from the monsoon of 1893. The Rahidra Bridge—four spans of 40 feet girders—was partially dismantled, the two southern spans, including the abutment and one pier, being carried away. The girders of the Utvali Bridge—five spans of 40 feet—were washed off, but as they were uninjured, they have been replaced in position, the piers and abutments having meanwhile been raised 2 feet.

On the Veraval Section all four spans (of 40 feet girders) of the Kilva Bridge and half of the south abutment were washed away. Of the Oojet Bridge—nine spans of 100 feet girders—four spans and three piers were washed away. A temporary diversion has been laid through the bed of the Oojet river.

Jetalsar-Rajkot Railway.—This line was completed during the year and opened for traffic on the 12th April 1893. It is worked under an agreement by the Bhavnagar-Gondal-Junagad-Porbandar Railway on behalf of the proprietary States.

The station at Rajkotpura was completed and opened during the year.

At present the line is separated from the Morvi Railway at Rajkot by the Agi river. A bridge across the river is under construction and when completed a junction will be made between the two gauges, the connecting link being about ½ mile long.. The work is expected to be completed by the end of June 1894.

MORVI RAILWAY—(2′ 6″ *gauge*).

29 lbs. rails have been laid in place of 19 lbs. rails from mile 62 to mile 67¾ on the Main Line, and from Vankaner Junction, mile 52½ to 57 on the Rajkot Branch. A further length of 2,856 feet of 29 lbs. rails have been laid in curves between Wadhwan and Dholia, miles 0 to 24.

1,839 steel sleepers for 19 lbs. rails on the Rajkot Branch, 773 on the Main Line between miles 0 to 24 and 100 teak wood sleepers in curves between miles 0 to 24 have been renewed. Two new crossings and a cross-over connection were put in at Vankaner, and the main loop siding lengthened and signal moved forward.

The banks at several places have been widened on the Rajkot Branch as well as on the main line.

One 6 feet arch culvert No. 32 at mile 15 was partially rebuilt.

Fencing has been erected round Khorana Station.

Two new corrugated iron goods-sheds have been erected, one at Wadhwan and one at Vankaner, and a carriage-shed at Morvi.

The project for the eventual conversion of the Morvi Railway to metre gauge is referred to in Chapter III.

Chapter III.—Lines under survey or projected.

(*For the official year 1893-94.*)

Rutlam-Ujjain Railway (standard gauge, about 61 miles).—The preliminary survey of this line, entrusted to the B. B. & C. I. Railway Company, was completed during the year. The estimates amount to Rs. 47,40,309, or Rs. 79,269 per mile. The line is being located.

Rutlam-Muttra Railway (standard gauge, about 350 miles).—The B. B. & C. I. Railway Company also completed the survey of the projected line from Rutlam northwards *viâ* Jhalrapatam, Kerowli and Bhurtpore to Muttra. The estimtes work out to Rs. 3,05,79,168, or Rs. 76,438 per mile, and the work of locating the line from Rutlam to the Chambal River is in progress.

Tapti Valley Railway (standard gauge, about 271 miles).—In connection with this project reference was made in last year's report to the survey of the western portion from Surat *vid* Songadh and Nandurbar to Amalner carried out by the B. B. & C. I. Railway. This has been reported on by the civil officers of the districts concerned. During the year 1893-94 the G. I. P. Railway Company completed the survey of the eastern portion (110 miles) from Manmad *vid* Dhulia and Amalner to Jalgaon. Alternative alignments have been suggested at two points, and these are under consideration, one by which it is proposed to join the G. I. P. Railway at Mhasvad instead of Jalgaon would save a bridge costing 12 lakhs of rupees over the Girna River as well as shorten the length of the line by about 2 miles. The project has been referred for opinion to the Civil Authorities, on receipt of whose replies the whole scheme will be placed before Government.

Extensions of H. H. the Gaekwar's Railways.—At the request of the Baroda Darbar the B. B. & C. I. Railway Company carried out a survey for an extension of the Gaekwar's Dabhoi Railway, on the 2′ 6″ gauge, from Bahadarpur to the Songhir quarries, a distance of about $8\frac{1}{2}$ miles. This line involves the crossing of two rivers, the Unch and the Heran; proposals have been made for crossing the latter by means of a low level bridge, which would reduce the estimated cost of the line from Rs. 4,80,682 to Rs. 3,97,682, or Rs. 42,083 per mile. The project is awaiting the settlement of certain details.

The Baroda Darbar also asked for a survey of a line on the standard gauge from Vishvamitri to Kanjat (22·7 miles), with a possible extension to Jambusar and Broach. The survey was carried out during the year, and estimates, amounting to Rs. 12,18,070, have been submitted by the B. B. & C. I. Railway administration. The Agent, B. B. & C. I. Railway Company, however, considers that the prospects of traffic does not warrant him in recommending the standard gauge for this extension, which, if constructed should, he considers, be on the 2′ 6″ gauge and connect with the existing lines on that gauge at Vishvamitri.

The route for a railway from Patan to Kheralu *vid* Sidhpur was also surveyed at the request of the Baroda Darbar. The Agent, B. B. & C. I. Railway Company, however, does not consider that either the Darbar or the Company would derive any benefit, commensurate with the expense, from the construction of such a connecting line between two points which are already linked by the existing lines *vid* Mehsana. It has been suggested that it would be better to carry the existing branch lines into the heart of the country to places where local centres of traffic exist rather than make a small net-work of lines round about the main through line.

Estimates for an extension of the existing Gaekwar's Mehsana-Patan line to Harij from Patan, or, as an alternative, from Manund road, have been got out at the request of the Darbar. From a traffic point of view the extension from Patan is considered preferable, and the Darbar has been so advised. It was asked that estimates should be prepared separately for the broad, metre and 2′ 6″ gauges; but only the metre gauge estimate need be considered. This amounts to Rs. 7,54,721 for a line from Patan to Harij (23·3 miles) and to Rs. 7,01,400 for a line from Manund Road to Harij (21·2 miles).

H. H. the Gaekwar's Government having revived the proposal for the construction of an extension from Visnagar on the Kheralu Branch to Vijapur, which was surveyed in 1887, estimates for the different gauges have been prepared and submitted. They amount as follows:—Metre gauge, Rs. 5,34,282; 2′ 6″ gauge, Rs. 4,94,345; standard gauge, Rs. 7,96,147. The length of the line is $16\frac{3}{4}$ miles.

Jamnagar State Railway.—During the year under report the Jam Sahib of Jamnagar (Navanagar) through the Political Agent, Kathiawar, submitted proposals for the construction of a metre gauge railway from Rajkot *vid* Dhrol to Jamnagar with a branch from Dhrol to the port of Jodia. The distance from Rajkot to Dhrol is 32 miles, from Dhrol to Jamnagar, 24 miles, and from Dhrol to Jodia, 14 miles; total, 70 miles. The railway is to be constructed at the expense of the Jamnagar State. His Excellency Lord Harris, Governor of Bombay, at the request of the Jam Sahib, performed the ceremony of cutting

the first sod at Jamnagar in November 1893. This was, however, before a detailed survey of the route had been carried out; this was undertaken towards the close of the year by the staff of the Bhavnagar-Gondal-Junagad-Porbandar Railway. This railway is roughly estimated to cost about 30 lakhs. The latest development is to abandon the line to Jodia and at present merely to make the direct line from Rajkot to Jamnagar with a possible extension hereafter to the Port of Salaya. The plans and estimates are nearly ready for submission to Government.

Morvi Railway.—Proposals were submitted for the eventual conversion of the 2′ 6″ gauge Morvi Railway to the metre gauge, and approximate estimates of the cost of conversion are under consideration. The present line runs along the Rajkot road from Wadhwan to Dholia; it is considered that if the line be changed to a broader gauge, it must be taken off the road. Orders have accordingly been issued for the selection of an altogether new alignment between those points, running as directly as possible from Wadhwan to Than and completely avoiding the Bhagava river. This involves the survey for about 32 miles. This survey, and the preparation of revised estimates of the cost of converting the rest of the line, are estimated to cost about Rs. 5,000. The Jam Saheb of Jamnagar having consented to advance this sum on the understanding that the future proprietors of the line, whoever they may be, will reimburse it to the Jamnagar State as soon as the scheme is sanctioned by Government, orders were issued towards the close of the year for the work to be put in hand.

Rajpipla State Railway.—In March 1893 Mr. A. Shewan, I. C. S.. Administrator of the Rajpipla State, submitted proposals for constructiong, at the cost of the State, a 2′ 6″ gauge railway to connect Nandod, the principal town in the State, with Anklesvar, a station on the B. B. & C. I. Railway. The distance between the two points is about 40 miles. From a trial survey carried out by the B. B. & C. I. Railway Company's officers it is estimated that this line could be made on the 2′ 6″ gauge for Rs. 14,37,588, excluding rolling stock, or about Rs. 35,583 per mile. Since then the Railway Company have estimated that the section between Anklesvar and Pardi, a distance of 20·3 miles, will cost Rs. 6,77,020, or Rs. 33,351 per mile, or about 8 lakhs including the necessary rolling stock; but until the line is located and detailed estimates are prepared, nothing more approximate can be given. The State has deposited the requisite funds for these surveys and estimates, which were undertaken by the B. B. & C. I. Railway Company towards the end of the year. It is proposed to construct the line in the first instance only from Anklesvar to Pardi, and hereafter to extend it as funds can be spared. In the meantime the project has been submitted for the approval of the Government of India.

Kolhapur State Railway.—In July 1891 the Board of Directors of the Southern Mahratta Railways enquired whether there was any likelidood of the Kolhapur Railway being extended to the western coast and were informed in reply that Government was not then prepared to consider the question. The Kolhapur Darbar have, during the past year, carried out the survey of an extension of their line from Kolhapur to Rajapur on the western frontier, a distance of about 37 miles. Rajapur is about 34 miles from the coast.

Just before the close of the year Colonel J. G. Landsay, R. E., Acting Agent, Southern Mahratta Railway Company, put forward proposals for a line about 200 miles long, leaving Karad Road Station on the Poona Branch, descending by the Khampoli Ghat to Chiplun and thence northward through the Konkan to a point opposite Bombay in or near Hog Island. He also indicated a possible extension southwards to Vengorla. These proposals are at present under consideration.

Other Railway Projects.—No action of any importance was taken during the year in connection with other projects referred to in previous annual reports.

The final alignment and gauge of the *Ahmedabad-Parantij Railway* project was still under consideration during the year. As the Baroda Darbár desire very much that this line should pass close by their village of Dehgaum, and as the only possible extensions of the project would be towards the north and west where they would meet the Gaekwar's metre gauge Mehsana Railway system,

or to the north and east towards Udeypore, to which place a metre gauge railway has lately been sanctioned, it has been suggested that the same gauge should be adopted for the Ahmedabad-Parantij project.

Nothing further was done during the year in connection with the *Ahmedabad-Dholera Railway* project, the concession granted to the old syndicate that was promoting it having lasped. In October 1893 Mr. Dhanjibhai Jamsetji of Ahmedabad approached Government with a proposal to make a 2′ 6″ gauge line or Tramway starting from Ahmedabad, crossing the Ellis Bridge there, running thence the whole way along the made road and terminating at Dholka (25 miles). In January 1894 a petition was also received from the inhabitants of Dholka praying for the construction of a railway or a steam tramway from Ahmedabad to their town. Mr. Dhanjibhai Jamsetji's proposals are under consideration.

The further consideration of the project for an extension of the Mysore Railway from Nanjangud to Gundlapet and later on to the foot of the Nilgiri hills has been deferred pending a decision in the matter of the proposals put forward by Messrs. Kirby and Lonsdale, for railways from (1) Arsikeri *vid* Hussan to Mangalore, (2) from Hussan to Mysore, and (3) from Nanjangud to Erode.

The latest orders of the Government of India about the *Kurnul Branch Railway* project are to the effect that the project must be left to be taken up by private enterprise, as they are not in a position to provide the necessary funds.

As regards the project for a railway from Deesa to Sind referred to in last year's report, the only thing since known in connection with it is that Mr. Etlinger completed the survey he had undertaken. It is understood, however, that Mr. J. Hamlyn Borrer, one of the promoters, has submitted the scheme direct to the Government of India. During the year the B. B. & C. I. Railway Company submitted proposals for extending the Palanpur-Deesa Railway across the Banas river and bridging the same. This would add a length of $1\frac{1}{2}$ miles to the existing line. An estimate for a metre gauge line, with substructure suitable for the standard gauge, was submitted in July 1893. The proposals, however, were not sanctioned.

Barsi Steam Tramway.—Reference was made in last year's report (Chapter I) to the publication of an Order relating to the concession for the construction of the proposed 2′ 6″ gauge steam tramway from Barsi Road Station on the G. I. P. Railway to Barsi town, a distance of about 22 miles. The order was published on the 9th December 1892. It was laid down that, subject to any extensions of time that His Excellency the Governor in Council might see fit to grant, the promoters should substantially commence the construction of the tramway within six months from the date of the Order. Since then, however, the promoters have appealed to the Secretary of State for India against certain provisions of the order; in consequence of this the period has been extended pending the orders of the Secretary of State.

Chapter IV.—Accidents.

(*For the calendar year 1893.*)

The following statements show the number of accidents to trains and the total number of persons killed, or injured on the Railways open for traffic during the calendar year 1893 as compared with similar figures for the year 1892 :—

A.

Number of Persons reported during the 12 Months ending 31st December 1893, as killed or injured on the Railways (open lines) under the control of the Government of Bombay by the travelling of trains or the movement of vehicles used exclusively upon the Line, distinguishing between Passengers, Railway Servants and other Persons, and classifying as far as practicable the nature and causes of the accidents occasioning death or injury.

Railways.			PASSENGERS.										SERVANTS.						OTHERS.				TOTAL ALL CLASSES.		REMARKS.
			From Part II.										From Part III.						From Parts I and II.						
			From accidents to trains, &c., see Table No. 2 or Part I.		From falling between Carriages and Platforms.		Falling on to the Platform, Railway, &c., when getting into or out of Trains.		While crossing the Line at Stations.		By the closing of Carriage Doors.		Falling out of Carriages during the travelling of Trains.		Other Accidents.		Total from Part II.		From Accidents to Trains, &c., see Table No. 2 or Part I.		During shunting Operations.		Falling off Engines, Vans, Wagons, &c.		Coming in contact with Over-bridges, &c., during the travelling of Trains.		Coming in contact, while shunting, with Vehicles, &c., standing in adjoining lines.		Getting on or off Trains, Engines, &c.		While loading, unloading or sheeting.		While breaking, spreading or chocking wheels.		While working at Cranes or Capstans.		While working on the permanent-way or in sidings.		While walking along the Line on the way home or to work.		While walking, crossing, or standing on the Line.		While passing between Vehicles.		While attending to the Machinery of Engines, cleaning them, &c.		While attending to Gates at level-crossings.		Falling or being caught between Vehicles and Platforms.		Falling off Ladders, Scaffolds, Platforms, &c.		By falling of Lamps, Wagon-doors, Timber, Weights, &c.		While coupling or uncoupling Wagons.		Miscellaneous.		Total from Part III.		Total Servants.		While passing over the Railway at level-crossings.		Trespassers.		Suicides.		Miscellaneous.		Total others.			
			Killed.	Injured.	Killed.	Injured.	Killed.	Injured.

B.

Accidents to Trains, Rolling Stock, Permanent Way, &c., reported during the twelve months ending 31st December 1893, as having occurred on the Railways under the control of the Government of Bombay, distinguishing the different classes of accidents, and the number of passengers and others and of railway servants killed or injured in each class of accidents.

	During 1893.						
	Number of Train Accidents.	Number of Passengers and Others.		Number of Servants.		Total all Classes.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains or part of passenger trains	1	...	...	...	...	...	...
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	8	...	...	...	2	...	2
3. Collisions between goods trains or parts of goods trains	34	...	2	...	2	...	4
4. Collisions between light engines	6	...	...	...	...	...	...
5. Passenger trains or parts of passenger trains leaving the rails	19	...	...	...	...	...	...
6. Goods trains or parts of goods trains, engines, &c., leavng the rails	28	...	...	...	...	...	...
7. Trains or i engines travelling in the wrong direction through points	17	...	...	1	1	1	1
8. Trains running into stations or sidings at too high a speed	7	...	...	...	...	...	...
9. Trains running over cattle on the line ...	721	...	...	...	...	...	...
10. Trains running over obstructions on the line...	94	...	...	3	42	3	42
11. Trains running through gates at level-crossings,	16	...	...	...	2	...	2
12. The bursting of boilers of engines ...	...	...	...	...	...	...	...
12A. The bursting of tubes, &c., of engines ...	98	...	...	...	...	...	...
13. The failure of machinery, springs, &c., of engines	210	...	...	...	...	...	...
14. „ „ of tyres	5	...	...	...	...	...	...
15. „ „ of wheels	5	...	...	...	...	...	...
16. „ „ of axles...	14	...	...	...	...	...	...
17. „ „ of break apparatus	2	...	...	...	...	...	...
18. „ „ couplings	106	...	...	...	2	...	2
19. „ „ of tunnels, bridges, viaducts, culverts, &c.	...	...	...	...	...	...	...
20. Broken rails	14	...	...	...	...	...	...
21. The flooding of portions of permanent-way ...	35	...	...	...	...	...	...
22. Slips in cuttings or embankments ...	5	...	...	...	...	...	...
23. Fire in trains	36	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	9	...	...	...	...	...	...
25. Other accidents	28	...	...	...	...	...	...
Total of all classes in 1893 ...	1,518	...	2	4	51	4	53
Do. in 1892 ...	1,319	*4	†18	7	21	11	39

	1892.	1893.
Mean mileage worked	5,616·08	5,802·007
Train mileage of all descriptions	23,604,222	24,246,673
Number of passengers	38,471,604	41,255,885
Train miles per accident	17,895	15,973
Passengers killed per million	0·078	0·000
„ injured per million	0·442	0·048

* Of these one was not a passenger.

† Of these one was not a passenger.

The following statement shows the number of train miles run, the number of accidents excluding "running over cattle," and the average number of train miles per accident on each railway during the year 1893 :—

	Train miles.	No. of Accidents.	No. of train miles per Accident.
G. I. P. Railway system	11,237,170	269	41,774
B. B. & C. I. Railway, including the Petlad Branch	24,81,272	77	32,224
Gaekwar's Dabhoi Railway	84,634	6	14,106
Rajputana-Malwa Railway system, including the Gaekwar's Mehsana Railway	6,677,140	219	30,489
Southern Mahratta Railway system, including the Mysore State Railway, the Kolhapur State Railway, the Bangalore-Hindupar Railway, and the Nanjangud Extension	3,010,664	210	14,336
Bhavnagar-Gondal-Junagad-Porbandar Railway, including the Jetalsar-Rajkot Branch ...	597,808	4	149,452
Morvi Railway	157,985	12	13,165

GREAT INDIAN PENINSULA RAILWAY—(*Standard gauge*).

At Ambernath, on the 21st February, No. 112 Up Goods train ran into and collided with No. 131 Down Goods owing to the driver of the former running past signals at danger. When the collision occurred, the Down train parted between the 8th and 9th vehicles and the rear portion of the train ran back 150 yards to just beyond the down distant signal. Permanent-way was slightly damaged, but the damage to Rolling-stock was to the extent of Rs. 7,000.

On the 20th March, at mile 393·18, South-East line, near Yadgiri, the engine of No. 153 Down Passenger train failed owing to a tube having burst behind the exhaust pipe. In connection with this failure, the engine of No. 1 Down Goods was sent down to the scene of the accident to work the passenger train and, while this engine was pulling the train to Yadgiri, the disabled engine, which was the front vehicle, ran into a lorry at mileage 395-20. The lorry, which was in charge of a Permanent Way Inspector, was proceeding to the scene of the first accident, but was not properly protected by signals. A lorry-man was killed and the Permanent Way Inspector and an Augwalla injured. The lorry was smashed, but the engine was only slightly damaged.

On the 24th July, at milege 111, near Devlali, the rear brake and seven wagons of a ballast train were thrown off the line down the bank through coming in contact with the Masonry Inspector's lorry. The accident was due to the excessive speed of the train and to the failure of the engine staff to see, and act promptly on, the guard's signal. Two ballast coolies were killed, and 37 other coolies together with the guard of the train were injured. The Government and Railway telegraph wire-posts were broken aad the line was interrupted for some hours.

B. B. & C. I. RAILWAY—(*Standard gauge*).

(Includes the Gaekwar's Petlad Railway.)

At Sanjan, on the 4th October, No. 7 Down Mixed train, while being received on the station loop, derailed at the south points owing to the latter opening suddenly through the defective working of the lever gearing. The permanent-way and eight wagons were damaged to some extent.

RAJPUTANA-MALWA RAILWAY SYSTEM—*(Metre gauge).*

(Includes the Palanpur-Deesa Railway.)

At Sirsa, on the 8th May, during a heavy storm, an empty low sided wagon, which was placed in the coal siding, was blown out of the siding through three locked points and over one locked Scotch block ; the vehicle passed through the

station-yard on to the main line and collided with No. 58 Down Mail train. The pointsmen at both ends of the yard made every effort to stop the truck, but, owing to the heavy wind and dust, were not successful. The wagon and the Mail engine were damaged.

On the 2nd November, between mileages 88 and 89-7, between Farakhabad and Shamsabad, No. 7 Up Mixed train parted between the 2nd and 3rd vehicle from the engine. The engine ran on to about mile 89-13. The driver then stopped and backed his engine till he collided with the rear portion of the train at mile 89-7. The five leading wagons of the train were damaged; the trailing wheels of the engine were derailed and the buffer bent. The driver and the fireman were slightly injured.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre gauge*).

(Includes the Mysore, the Kolhapur, the Guntakul-Bangalore, and the Nanjangud Extension Railways.)

At Bangalore City, on the 20th March, while some wagons were being loose shunted, a rake of 12 wagons was, through the neglect of the traffic staff, wrongly allowed to run on to the main line instead of into the catch siding. The whole rake ran on towards Kengeri. About half way the six rear vehicles got derailed. This derailment caused the six front vehicles to part from the derailed ones. They ran on to Kengeri, where the Station Master, who was apprised of their approach, put a sleeper in their way and derailed them. Permanent-way and Rolling-stock were damaged.

On the 25th May, while No. 163 Up Mixed train was passing mileage 102-11, Bijapur Branch, the 4th wagon from the engine got derailed. The driver immediately applied the hand and steam brakes and reversed the engine with the result that the tender, 1 C. G. wagon, 1 third-class carriage, and both brake vans got derailed. The cause of the first derailment is doubtful, but that of the second is attributed to the attempt of the driver to suddenly check the excessive speed at which the train was travelling. Rolling-stock and permanent-way were somewhat damaged.

On the 29th May, at mileage 48·17-18, Main Line, between Mugad and Kambarganvi, the engine, tender and 10 wagons of No. 59 Up Goods train became derailed, and three wagons capsized. The derailment is supposed to be due to the falling out of one of the wagon springs.

On the 30th August, at mileage 22-8, Main Line, between Devarai and Londa, C. G. wagon No. 8357 of No. 19 Up Mixed train was derailed through the breakage of one of its axles, due to a flaw in the metal. The wagon and permanent-way were slightly damaged.

GAEKWAR'S MEHSANA RAILWAY—(*Metre gauge*).

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre gauge*).

GAEKWAR'S DABHOI RAILWAY—(2′ 6″ *gauge*).

No serious train accidents occurred on these three lines during the year.

MORVI RAILWAY—(2′ 6″ *gauge*).

On the 3rd October, the engine and tender, one wagon, one lower class carriage and one upper class carriage of the Up Mail train were derailed on a curve of 850 feet radius, on a falling gradient of 1 in 150, at mile 55 between Sindhavadar and Vankaner stations on the Rajkot Branch. The accident is supposed to be due to the fact that the sleepers had not been properly packed, that the cant had not been correctly maintained, and that the outer rail must have sunk as the train passed over it, thus causing a derailment. Rolling-stock and permanent-way were slightly damaged.

Flood Damages.

GREAT INDIAN PENINSULA RAILWAY SYSTEM—(*Standard gauge*).

(Includes the Wardha Coal, the Dhond and Manmad and the Berars State Railways).

There were hardly any damages by floods on this system during the year, the only mishap recorded being a slight washaway of ballast on the 15th June at mile 143-9 on the Dhond and Manmad Line.

BOMBAY BARODA AND CENTRAL INDIA RAILWAY—(*Standard gauge*).
(Includes the Petlad Branch).

No damage which impeded traffic was done by the rains of 1893, but through traffic had to be suspended on the Sabarmati Bridge north of Ahmedabad for about 9 hours on the 16th September when the flood rose to 31 feet on gauge, when it was considered unsafe to allow trains to pass.

On the 20th June, owing to heavy rain, the new earth-work under the rails of the siding at Navli Station was washed away and the rails dropped rendering the siding unsafe for the passage of trains, and the slope at mileage 200, near the Narbada Bridge, was also slightly washed away for a distance of 350 feet.

RAJPUTANA-MALWA RAILWAY SYSTEM—(*Metre gauge*).

On the 12th July, on the Rajputana Section, a heavy flood from the Sabi River ran parallel to the railway bank and overtopping it breached it at the 43rd mile from Delhi between Khalilpur and Jataoli Stations. The bank was breached in three places, *viz.*, at mileages 42—6-7, 42—9-10½ and 42—11-12, the aggregate length of the breaches being about 700 feet. Temporary repairs were made and traffic was resumed on the 20th idem. With a view to prevent injury to the line by the recurrence of similar floods in future, the clearing of the channel of the river for about two miles has been taken in hand; and sanction has been accorded to the immediate provision of two new bridges, each of 4 spans of 22 feet, at this mileage.

On the 8th August, the line between Mandsaur and Dhodhar on the Malwa Section was breached by floods in two places, *viz.*, from mileage 187/11 to 187/16 and from mileage 201/9 to 201/13.

At Bawal, on the 10th September, the third line was washed away in three places, the second line at point No. 2 and the main line for about 6 feet. The latter was blocked for about three hours and the second and third lines for about 9 hours. On the 16th idem, at mileage 532/18-19, Rajputana Section, between Mehsana and Bhandu, the north embankment of the bridge was washed away.

GAEKWAR'S MEHSANA RAILWAY—(*Metre gauge*).

On the 21st June, through heavy rain, 456 feet of line at mileage 9, at mileage 11, and at mileage 12 on the Patan Branch were washed away and traffic was stopped; on the 22nd the repairs, which had been done the previous evening, were carried away and the breaches widened; on the 23rd idem further breaches occurred at mileages 16/11, 17/19, 19/5 and 20/15. Traffic was resumed on the 25th.

On the 22nd June, owing to heavy rainfall and floods, the ballast and earth-work of a small culvert at mileage 24 and a portion of the line at mile 27 on the Kheralu Branch were washed away. The pitching of the south abutment of the Motipura Bridge was entirely washed away and the north pitching partly; also three lákhs cubic feet of earth-work, the pitching having sunk the formation subsided considerably and the slopes of the bank were washed away. The bridge was repaired and passed for traffic on the 5th July.

On the 16th September, the ballast from mile 16/8 to 17/2, near Manund Road on the Patan Branch, and a part of the bank of the south abutment of the Rupen bridge were washed away. The line could not be fully repaired till the 20th idem.

GAEKWAR'S DABHOI RAILWAY—(2' 6" *gauge*).

On the 7th July, at mileages 7 and 8 between Kelanpur and Bhilapur, owing to heavy floods, the line on the Jambura bridge and weir was washed away for about 608 feet. Traffic was resumed the next day.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre gauge*).

(Includes the Mysore, the Kolhapur State Railways the Nanjangud Extension and the Guntakal-Bangalore Railways).

There was heavy rainfall along the line during the second and fourth quarters of the year, and the damages were rather considerable.

On the 24th April, on the Poona Branch, between Karad and Shenoli, the curtain wall joining the wings of the 3' culvert at mile 16/12 and the curtain wall of the 1—10 feet girder at mile 160/8 were washed away. Serious scour also took place under the 1—10 feet arches at miles 159/18 and 158/8.

Through heavy rain on the 27th April, the line at mileage 308/9, Mysore Railway, sank badly and the bank was also damaged in several places.

On the 26th May the Poona Branch was flooded at mileages 149, 150 and 151, between Takari and Shenoli, and about 50 feet of ballast was washed away.

On the 1st and 2nd June, heavy rain breached the Main Line at mileages 295, 301/12 and 316/13, and on the 3rd idem the line at mileage 132/3 was washed away for a rail's length.

On the 3rd June also the flood water overflowed the catch-water drain at mileage 86/56 on the Bijapur Branch and washed away ballast for a length of six rails.

On the 4th June the Main Line was breached by heavy rain at mile 376. The water having run through the bank at the bottom, worked out the embankment earth and consequently the top surface of the ballast and embankment subsided 3 feet for a length of 13 feet. On the 7th idem, at mile 13/19, Bangalore-Hindupur Section, between Bajankunte and Yelehanka the line was washed away for a length of 120 feet.

Owing to heavy rainfall on the 15th June the Bijapur Branch was breached at mile 164 and water ran over the line between Tadval and the above mileage. There were also partial breaches from the north points of Tadval Station to mileage 160/9 and at mile 163/4.

On the 11th October, at mileage 57/1-4, between Mugad and Dharwar, heavy rain breached the line rendering it impassable for trains. The catch-water drain being partly blocked, the flood water ran along the line (which is a surface one at this mileage) and flowed across it. The ballast was washed away at the edge of the sleepers and passenger traffic was slightly delayed. On the same day, on the Mysore Section, half a rail's length of bank was washed away at mileage 85/1 and at mileage 84/17 a large catchwater drain overflowed and the water making its way into the cutting rushed along the drains and eventually breached the line for about 100 yards.

Through heavy rain on the 12th October the Main Line was breached (in two places) at mileage 385 near Somidevipalli Station. There were also breaches between telegraph posts 375/19 and 375/20 just outside the south-west signal of the Somidevipalli Station where six feet of bank was washed away, leaving a gap 14 feet to 20 feet wide. Passengers were transhipped on the 12th as also on the 13th when the line was restored to traffic.

On the 16th October, at mileage 56/1, Bijapur Branch, between Lachyan and Tadval, a heavy flood came down the nala that runs parallel with the line resulting in the side of the nala, which is nearest the railway bank, being eroded for a distance of 30 feet, thereby undermining the embankment, part of which fell into the nala. The speed of trains was therefore restricted over the damaged

portion of the line to 3 miles an hour and night running was stopped till the 23rd October, when it was resumed. On the same date, on the Bellary-Kistna line near Rungapuram, owing to the bursting—after 36 hours' heavy rain—of the bund of an irrigation tank, situate about a mile and a half from the Railway line on the up-stream side, one abutment of a culvert of a single span of 10 feet girders at mileage 292/5 was washed away, as also a culvert of a single span of 20 feet girders with an abutment arch of 10 feet span at mileage 293/1, together with about 300 feet in length of the bank. Passengers were trollied across the breaks, while temporary diversions were being constructed, and traffic was resumed on the 21st idem.

Through heavy rain on the 11th November, the line on the Mysore section near Nanjangud sank badly between miles 307 and 309 and trains were passed over the length on caution orders till the line was packed and restored the same day. At mile 307½, the pitching at the south wing wall of the 20 feet arch bridge gave way. The pitching of the 10 feet arch bridge at mile 308½ also gave way on the south side, and at mile 309, the flooring of the 10 feet arch was washed away. The banks also at several lengths between miles 303¼ and 305 settled greatly.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre gauge*).

(Includes the Jetalsar-Rajkot Section.)

Heavy rains commenced on the 18th June and, continuing on the 19th and 20th, caused serious damage to this Railway at several places.

Veraval Section.—At mile 4/11, 300 feet of line was partially washed away; there was also a small washaway of about 4 rails' length at mile 11. At mile 23, some 400 feet of the south end of the Shahpur Station yard were completely washed away. All four spans of the Kulwa bridge were washed away. The piers and the north abutment remained standing but the south abutment was half down and there was a complete gap—some 300 feet wide—in the bank behind it; at mile 23/10 also there was a similar gap in the bank, about 200 feet wide. At mile 23/17, 200 feet of bank behind the north abutment and 150 feet behind the south abutment of the Oojet north approach bridge were washed away. The 3rd, 4th, 5th and 6th spans from the Jetalsar end of the Oojet main bridge (9 spans of 100 feet) at mile 24/3 were washed away, and at mile 24/11 there was a little scour behind the north abutment of the Oojet south approach bridge; the east wing wall of the south abutment of this bridge was also damaged. There were also damages on this section beyond this point, but they were of a minor character.

Porbandar Section.—At mileage 123/4, 300 feet of bank, which is here about 22 feet high, were washed away. The north approach of the Bhadar Bridge (11 spans of 63 feet plate girders) at mileage 123,4 was also washed away for 100 feet. The flood water topped the piers, but the bridge does not appear to have suffered any appreciable damage. Further, at mileage 124/12, the two southern spans of the Rahidra bridge (4 spans of 40 feet girders), together with the abutment and pier as well as 220 feet of bank behind that abutment, were washed away. From mileage 125/4 to mileage 125/17 just beyond Supeda Station, the line was completely washed away; at mileage 125/6, a 20 feet girder span was lifted off its abutments, but happily neither the girder nor the abutments got injured; but at mileage 125/19, all the girders of the Utvali bridge (5 spans of 40 feet girders) were washed away. From mileage 123/10 to 127/8 the bank was more or less completely demolished.

Jetalsar-Rajkot Section.—This being a new piece of line, the heavy rain damaged the bank which had not had time to get consolidated. There was also a wash away for 100 feet at the 8th mile, but none of the bridges gave way. The section had to be closed to public traffic between the 19th and 29th June.

Diversions were laid down in several places to pass the traffic during the time the line was under repairs. Through traffic on the Veraval Section was resumed on the 16th July, passengers being transhipped at the Oojet River in boats; through communication on the Porbandar Section was fully restored on the 24th idem.

MORVI RAILWAY—(*2' 6" gauge*).

The damages on this line during the year were unimportant.

Chapter V.—Stores and Rolling Stock.

(*For the calendar year 1893.*)

GREAT INDIAN PENINSULA RAILWAY—(*Standard gauge.*)

The stores balance on 31st December 1893 amounted to Rs. 45,08,160, inclusive of a sum of Rs. 41,217, representing value of stores in transit. The principal items making up that balance are:—

	Rs.
Permanent way materials	9,63,166
Station materials	1,67,315
Bridge work and fittings	1,23,703
Fuel	2,02,203
Tools	82,035
Stationery	1,01,670
Engines, locomotive and stationary, and sundry gear.	7,70,559
Rolling stock	4,81,851
Metals	10,18,456
Oils, tallow, waste, varnishes, coal-tar, pitch and rosin	57,883
Timber	1,07,310
Other items	3,90,792
	44,66,943
Stores in transit	41,217
Total ...	45,08,160

Stores to the value of Rs. 66,12,236 were received during the year, *viz.*:—

	Rs.
Purchased in England	33,41,968
„ „ India	32,70,268

And the issues of the year were:—

	Rs.
To Construction account	3,90,715
To Revenue account	61,50,816
Sales, &c.	8,16,754
Total ...	73,58,285

The value of capital locked up in stores was thus reduced during the twelve months under report by Rs. 7,46,049—a very satisfactory result, considering that reductions of Rs. 11,25,422, and Rs. 16,41,877, were made during the years 1892 and 1891 respectively, and that the stores balance has been brought down from Rs. 80,21,508 on 31st December 1890 to Rs. 45,08,160 on the 31st December 1893, the sanctioned limit for stores being 63 lákhs. The principal reductions during 1893 were Rs. 1,73,455 in permanent way materials, Rs. 1,56,245 in fuel, Rs. 2,89,536 in Rolling Stock, Rs. 1,03,670 in metals, and Rs. 2,75,044, in balance of stores in transit; on the other hand, the balance of engines, locomotive and stationary, and sundry gear, was increased by Rs. 1,82,199.

The rolling stock of the line at the close of the year consisted of the following, the figures in the second column show rolling stock in actual running order on the last day of the year, the remainder being those undergoing or awaiting repairs and renewal on that day:—

Engines:—		
Passenger, ordinary	114	84
Goods, do.	375	303
Incline, special	74	48
Tank...	42	35
Total ...	605	470

Coaching Vehicles—

First class, ordinary	88	79
Composite, first and second class, ordinary ...	73	65
Do. second and third do.	2	2
Second class, ordinary	150	136
Do. with postal accommodation, ordinary ...	22	19
Third class, ordinary, without brakes	526	471
Do. ambulance do.	29	28
Third class and brake-vans	81	75
Compound, third class incline vans	1	1
Postal vans	6	5
Prison vans	6	6
Carriage trucks	50	45
Horse-boxes	93	82
Brake-vans	508	482
Total, Coaching Vehicles ...	1,635	1,496

Goods Vehicles—

Covered wagons, ordinary, iron	532	518
Do. do. do. wooden	4,013	3,763
High-sided wagons, bogie, iron	50	45
Do. ordinary, wooden	414	389
Low-sided wagons do. iron	809	794
Do. do. wooden	1,609	1,494
Pilot wagons	25	25
Powder vans	18	17
Timber trucks, wooden	191	171
Travelling water tanks	12	12
Do. cranes	47	47
Miscellaneous (ballast wagons)	280	256
Total, Goods Vehicles ...	8,000	7,531

The following table shows the rolling stock repaired and renewed during the year :—

	First-half.	Second-half.	Total.
Engines, repaired	189	170	359
„ renewed	8	7	15
Coaching vehicles, repaired	1,446	997	2,443
„ renewed	40	34	74
Goods vehicles, repaired	4,974	4,329	9,303
„ renewed	101	120	221

Of the total number of vehicles on the line the following are adapted for military purposes :—

Fitted for ambulance purposes ...	29	Third class carriages.
Fitted with hooks or racks for suspending rifles	54	Second class do.
	66	Third do. do.
Horse boxes capable of carrying 3 horses each...	93	
Number of covered goods wagons adapted for carriage of 8 horses or 10 ponies each.	1,505	wooden wagons
Number of open goods wagons suitable for the carriage of artillery guns ...	2,882	medium or high-sided wagons.
	280	ballast or low-sided do.

Brakes.

The rolling stock of the line fitted with brakes is now as follows :—

	Vacuum Automatic.	Simple Vacuum.	Steam.
Locomotives	86	189	27
Vehicles	260	...	...

Couplings.

The whole of the coaching stock is fitted with screw couplings at both sends; 1,258 goods vehicles were fitted with those couplings during the year, making a total of 2,050 goods vehicles so fitted, and leaving 1,450 more to be fitted to complete 30 per cent. of the entire goods stock.

In addition to the rolling stock of the line detailed in the foregoing paras. the Company possesses a $\frac{7}{16}$ths share in the undermentioned East Indian Railway and G. I. P. Railway joint stock employed in the through service between Calcutta and Bombay :—

First class carriages	8
Second „ „	8
Luggage vans	8
Mail vans	12
Total ...	36

DHOND AND MANMAD STATE RAILWAY (*Standard gauge*).

On 31st December 1893 the stores balance stood at Rs. 35,030 or Rs. 33,286 more than the balance at end of 1892, as shown below :—

	Rs.
Balance on 31st December 1893	35,030
Do. do. 1892	1,744
Increase in 1893 ...	33,286

The transactions for the year 1893 were as follows :—

	Rs.
Receipts	33,447
Issues...	161
	33,286

The receipts during the year represent the cost of fencing material received from England.

THE BERARS RAILWAYS (*Standard gauge*).

On 31st December 1893 the balances were as under :—

	Rs.
Khamgaon State Railway	2,046
Amraoti State Railway	8,352

The issues during the year were on the :—

	Rs.
Khamgaon State Railway	1,565
Amraoti State Railway	252

These stores consist entirely of permanent-way materials which are in the custody of the G. I. P. Railway Company, who are authorized to use them when required. The value of stores thus used for their own purposes is recovered from the Company and credited to the Capital Accounts of the Railways.

WARDHA COAL STATE RAILWAY (*Standard gauge*).

There is no Stores account on this line.

B. B. & C. I. RAILWAY (*Standard gauge*).

The stores accounts closed on 31st December 1893 with a balance of Rs. 25,46,994 or Rs. 2,39,792 less than the balance at close of 1892 as shown below :—

	Rs.
Balance on 31st December 1892	27,86,786
Do. do. 1893	25,46,994
Decrease in 1893 ...	2,39,792

The transactions of the year 1893 were as follows :—

	Rs.	Rs.
Receipts—		
English stores	14,70,874	
Indian stores	13,81,368	
		28,52,242

Issues—		
On Capital account	7,71,756	
„ Revenue account	17,70,262	
„ Sales, &c.	5,50,016	
		30,92,034
Net decrease as above ...		2,39,792

The reduction was principally due to the heavy issues to capital for construction of rolling stock.

The detail of balance on hand on 31st December 1893 was as under :—

	Rs.
Engineering stores	9,05,423
Locomotive stores	14,89,360
Traffic stores...	62,287
General stores	11,853
Stores in transit	78,071
	25,46,994

The Rolling stock on 31st December 1893 consisted of the following :—

	No.	
Engines—		
Tank	15	
Passenger	15	
Goods and Passenger	27	
Goods	77	
		134
Coaching Vehicles—		
First class	30	
Composite	22	
Second class	41	
Intermediate	24	
Third class	274	
Mail and brake vans	41	
Carriage trucks	4	
Horse boxes	15	
		451
Goods Vehicles—		
Wagons of all kinds	3,636	
Powder vans	6	
Goods brake vans	66	
Accident cranes	3	
		3,711

The following are the principal additions and alterations, &c., during the year :—

Additions—

6 New Engines were added to the stock on capital account for Godhra-Rutlam Railway.

3 Do. do. do. on renewal account.

56 Covered wagons, iron } Constructed and added to the stock.
20 Do. wood }

2 Low-sided wagons, which were sold to Salt Department, were returned by Government and were added to the stock.

6 Goods brake vans were constructed and added to the stock.

Reduction—

2 Passenger and goods engines were condemned and taken off stock.

Alterations—

1 High-sided wagon A.
20 20 feet low-sided wagons C.
12 20 feet covered wagons V.
17 16 feet covered wagons X.
} Renewed as 18 feet covered wagons X 2 and transferred.

Gaekwar's Dabhoi Railway (2'6" *Gauge*).

The stores account was closed on 31st December 1893 with a balance of Rs. 17,283, or Rs. 126 less than the balance at close of 1892, as under :—

	Rs.
Balance on 31st December 1893	17,283
Do. do. 1892	17,409
Net decrease ...	126

The balance on 31st December 1893 represents the value of—

	Rs.
Bolts, nuts and washers	164
Ferrules, steel	4,992
Fish plates	277
Gauges, Permanent-way	20
Rails, steel	2,163
Signals, &c.	114
Springs, &c.	2,176
Switches, single	200
Tubes, brass	2,312
Tarpauline	3,942
Washers, iron	144
Wheels & axles	297
Tyres, steel	482
	17,283

Gaekwar's Petlad Railway (*Standard gauge*).

The stores balance on 31st December 1893 stood at Rs. 10,393 and consisted of the following :—

	Rs.
Bolts, nuts and washers	119
Fish plates	119
Rails, steel	2,709
Spikes	87
Sleepers, steel	6,326
Cranes, water, incomplete	600
Do. do. old parts of	235
Keys, steel	198
	10,393

Rajputana-Malwa Railway System (*Metre Gauge*).

The stores account shows an increase of Rs. 3,42,574 during the year, as follows :—

	Rs.
Balance on 31st December 1893	44,43,971
Do. do. 1892	41,01,397
Increase ...	3,42,574

The increase is distributed over several classes, principally 1 lakh under fuel, 2 lakhs permanent way material, 40,000 metals, and 20,000 each under printer's stores and stationery, and timber 35,000.

The stores balance as per priced ledgers on 31st December 1893 amounted to Rs. 42,30,314 and showed a difference of Rs. 2,13,657 from the general books as follows :—

	Rs.
Issues of stores pending departmental acceptances, shown as stores in transit	28,341
Difference under-adjustment	2,25,070
Total ...	2,53,411

Deduct—

Excess in the stock of stationery and forms awaiting adjustment.	16,008
Balance of stock adjusting account	23,746
Total ...	2,13,657

The balance of stock-adjusting account has been reduced from Rs. 1,27,924 to Rs. 23,746.

The Rolling Stock on 31st December 1893 was as under :—

Engines—		
Mail, special...	34	
Passenger, Ordinary	109	
Goods	249	
Local Traffic Shunting and Ballast	32	
		424
Coaching Vehicles—		
Saloon and first class carriages	130	
Composite	46	
Second class carriages	96	
Inspection carriages	11	
Composite 2nd and 3rd class carriages	7	
Intermediate carriages	50	
Composite intermediate 3rd class	25	
Intermediate and Post Office combined	8	
Third class and do.	8	
Third class carriages	766	
Brake-vans...	266	
Horse boxes	82	
Post Office, Prison and luggage vans	48	
Miscellaneous	40	
		1,583
Goods Vehicles—		
Goods vans of all kinds	7,193	
Accident, powder and stores vans	51	
Travelling cranes	26	
		7,270

No addition to, or reduction in, the stock was made during the year; the only alteration made was that two ordinary brake-vans were fitted for Postal service.

SOUTHERN MAHRATTA RAILWAY SYSTEM *(Metre Gauge).*

The Stores transactions for the year were as follows :—

	Rs.
Balance, 1st January 1893	19,98,435
Receipts during 1893	18,48,267
Total ...	38,46,702
Issues during 1893	20,63,589
Balance, 31st December 1893	17,83,113

The net result being a reduction in the stores balance at the close of the year of Rs. 2,15,322, due partly to issues of stores for maintenance, renewal and working of the line being in excess of receipts from England and local purchases and manufacture, and partly to sales, amounting to Rs. 32,047, to the East Coast and Bangalore-Hindupur Railways.

The additions to stock during the year consisted of—

	Rs.
English supplies	3,02,080
Indian purchases	14,65,961
Returned stores...	80,226
Total ...	18,48,267

The issues were on—

	Rs.
Capital account	... 6,53,057
Revenue do.	... 13,54,491
Sales do.	... 56,041
Total	... 20,63,589

The stores obtained on indents from England were :—

- Coke.
- Smithy coal.
- Steel tyres.
- Leather and Indian Rubber goods.
- Bolts and nuts.
- Copper rods.
- Boiler tubes.
- Fire-box plates.
- Bearing springs.
- Files.
- Duplicate parts of Ghát Engines.
- Iron plate.
- Phosphor Bronze.
- Printing paper.
- Blank card tickets.
- Screw jacks.
- Stocks, taps and dies.
- Telegraph block instruments.
- Axle boxes.
- Lathes and other workshop machinery.
- Boiler plates.
- Varnishes.
- Switches and crossings.

Indian purchases consisted chiefly of—

- Singareni coal.
- Kerosine oil.
- Castor oil.
- Cocoanut oil.
- Canadian oil.
- Waste cotton.
- Wood fuel.
- Stationery.
- Painters' Stores.
- Timber.

The value of stock in hand on 31st December 1893 divided into classes is—

	Rs.
Bridge work	6,513
Engineer's plant	38,272
Workshop machinery	53,675
Permanent way materials	2,60,540
Rolling stock	5,77,188
Station materials and fencing	82,099
Tools	61,398
Metals	2,00,345
Timber	53,493
Fuel	1,69,709
Stationery	95,330
Miscellaneous Stores	1,84,551

Rolling Stock.

Brakes.

No automatic vacuum brakes have been fitted to stock running on this line, but the following have been fitted with Westinghouse brakes—

Locomotives	3
Coaching vehicles	19

Couplings.

None of the Rolling Stock is fitted with double couplings.

Rolling Stock adapted for Military purposes.

The following vehicles suited for military purposes are running on the line—

Coaching.

Composite bogie, 1st and 2nd Class	12
Do. ordinary do.	20
Second Class carriages	36
Third Class bogie carriages	42
Do. ordinary do.	174
Brake-vans	17

Of the above vehicles 2nd Class compartments of composite carriages and 3rd Class compartments of brake-vans have been fitted with iron racks.

Ambulance Third Class carriages	3
Horse Boxes	36

Goods.

Medium sided wagons...	111
Low sided wagons, iron	762
Do. 6-wheeled	2
Do. with wooden sides	33
Do. military type	53
Covered goods wagons for carrying horses	100

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY (*Metre-Gauge*).

The statement below shows the transaction of the Stores Department:—

	Rs. a. p.	Rs. a. p.
Balance on 1st January 1893 ...	.....	1,16,107 4 2
Receipts during 1893—		
Purchases in India	3,68,458 7 7	
Do. England	4,40,867 7 11	
		8,09,325 15 6
Total ...	.....	9,25,433 3 8
Issues during 1893—		
Capital	2,81,601 6 4	
Revenue	2,94,311 4 9	
Sales	43,354 8 9	
Total Issues ...	.....	6,19,267 3 10
Balance on 31st December 1893 ...	.....	3,06,165 15 10

Out of Rs. 43,354-8-9, Rs. 25,648-6-11 is on account of stores sold to the Jetalsar-Rajkot Railway; Rs. 17,367-0-9 is for coal sold to the Morvi Railway; and the remaining Rs. 339-1-1 is for stores sold to the public.

Detail of balance on hand on 31st December 1893:—

	Rs. a. p.
General Stores	2,14,290 10 8
Locomotive Stores	73,962 3 9
Forms and Stationery...	17,913 1 5
Total ...	3,06,165 15 10

The principal items of stores comprising the balance in the Magazine are:—

	Rs. a. p.
Bridge-work	2,655 11 1
Engineers' Plant	21,664 2 4
Work-shop Machinery and Heavy Tools ...	2,399 8 8
Ballast and Permanent Way	93,566 15 3
Locomotive Duplicates...	28,540 6 4
Coaching and Goods Stock	14,446 0 11
Station Machinery and Fencing	13,948 10 2
Tools and Miscellaneous Stores	37,069 3 11
Total ...	2,14,290 10 8

Out of the total of stores Rs. 44,824-2-5 represents the value of depreciated or second-hand stores.

The Rs. 73,962-3-9 of Locomotive stores consists of stores as below :—

	Rs.	a.	p.
Carriage and Wagon Materials	38,452	6	1
Coal and Coke	10,054	1	9
Timber	3,292	3	3
Petty and Miscellaneous Stores	2,163	8	8
Total ...	73,962	3	9

Out of Rs. 17,913 on account of forms and stationery, Rs. 16,178-5-1 represents value of forms and books, and Rs. 1,734-12-4 of stationery.

During the year the undermentioned Departments returned stores of the value indicated :—

	Rs.	a	p.
Engineering Department	8,962	14	3
Locomotive and Carriage Department ...	204	10	0
Traffic Department	402	15	6
Audit and Account Department	231	0	0
Stores Department	230	0	10
Total ...	10,031	8	7

The principal items of stores returned by the Engineering Department are rails worth Rs. 6,724-2-6 and girders worth Rs. 1,462. An additional lot of 90,000 creosoted pine sleepers was ordered in January 1893 for renewals on the open line, of which 39,668 did not come in time to bring them up by country craft before the boating season closed. They were brought up in November and December and distributed on the line as required.

Morvi Railway (2' 6" *gauge*).

Upper class No. 5 has been altered to intermediate and upper on improved lines, His Highness the Thakor Saheb's old Saloon altered into a sleeping carriage, upper Class No. 3 thoroughly repaired, Horse Box No. 32 thoroughly repaired, Lower Class carriages Nos. 7 to 14 and 18 thoroughly repaired, Mail Vans Nos. 15, 16, 17 fitted with sorting compartment and thoroughly repaired, a Saloon for Manager 30' 8" long and 6' 10" wide completed, Brake Vans Nos. 35, 37, 38 repaired.

Three engines have undergone heavy boiler repairs.

Chapter VI.—Capital Transactions.

(For the calendar year 1893.)

G. I. P. Railway *(Standard Gauge).*

Additional Capital to the extent of £259,600 was raised in January 1893 by the issue of 3 per cent. debentures and paid into the London Treasury ; and £40,400 worth of 3½ per cent. matured debentures were renewed in the same month at 3 per cent. The Capital of the Company now stands thus :—

	£	
Authorised Capital—		
Share Capital ...	20,000,000	
Debenture Stock ...	6,666,666	
Total ...	26,666,666	= Rs. 29,09,09,084.

		£
Subscribed Capital—		
5 per cent. share capital...	...	20,000,000
4 Do. debenture stock	...	2,701,450
3½ Do. debentures ...	...	804,800
3½ Do. do. ...	...	1,866,100
3 Do. do. ...	...	300,000
Total interest bearing capital	...	25,672,350
Add—		
Capital not bearing:		
Premia on share capital and loans ... £ 229,870		
Transferred from Casualty Fund ... 74,187		
304,057		
Less—		
Discount on loans ... £ 13,983		
Discount on debenture and stock... 225,891		
239,874		
		64,183
Total Capital paid into Treasury ...		25,736,533 = Rs. 28,07,62,174.

Capital Expenditure—	£	Rs.
On Construction account ...	25,022,832	27,29,76,352
On Stores in suspense	413,248	45,08,160
Less credit balance of advances in suspense	17,476	1,90,652
Total ...	25,418,604	27,72,93,860
Balance available of:—		
Authorised Capital	1,248,062	1,36,15,224
Subscribed Capital	317,929	34,68,314

The following is the detail of the Capital expenditure on final heads of account:—

	During 1893.	To end of 1893.
	Rs.	Rs.
Preliminary expenses	.....	2,72,727
Establishment charges	.....	40,35,133
Engineering and surveying expenses.	11,806	1,47,06,744
Law charges	.....	2,04,577
Stations and Buildings... ...	5,48,873	3,43,94,867
Commission on Loans	24,545	4,89,815
Passages to Bombay	546	4,76,509
Permanent way	56,287	6,61,87,153
Works	37,220	10,70,29,615
Electric Telegraph	.....	17,66,926
Locomotive and carriage and wagon stock	1,19,499	4,34,62,286
Total Final Heads ...	7,98,776	27,29,76,352
Stores Suspense Account ...	Cr. 7,46,049	45,08,160
Advances in suspense	25,878	Cr. 1,90,652
Total final and suspense heads ...	76,605	27,72,93,860

And the following are the individual Capital works on which the expenditure during the calendar year amounted to Rs. 25,000 or more:—

	Rs.
Victoria Terminus and Masjid—Interlocking arrangements	74,805
Byculla—New running shed for goods engines and alterations to existing shed for passenger engines ...	56,283
Itarsi—Joint station arrangements	46,579
Poona— Do. do.	33,655
Introducing new system of signalling arrangements along the line	95,457
Strengthening old 30 feet girder bridges on the line ...	70,911
Lighting the Company's trains with Pintsch's patent oil gas	27,597
100 sets of automatic vacuum brake fittings for coaching stock	51,031

The interest charges paid for 1893 compare as follows with the net earnings of that year :—

		Rs.
Interest on share capital	at 5 per cent. ...	1,09,09,091
„ Debenture stock	4 per cent. ...	11,78,815
„ Debenture	3½ do. ...	3,07,287
„ Do.	3¼ do. ...	6,61,617
„ Do.	3 do. ...	96,436
		1,31,53,246
Net earnings of year less rent of leased lines and contributions to Provident Fund		1,80,19,294
Excess of net earnings over interest charges ...		48,66,048

There were no overdrawals of Capital during the year, which closed with a balance of Capital in the Company's favor of £ 317,929 = Rs. 34,68,314.

DHOND & MANMAD AND WARDHA COAL STATE RAILWAYS (*Standard gauge*).

The expenditure for the year 1893 was incurred on—

	Rs.
Dhond & Manmad State Railway	64,097
Wardha Coal State Railway	*Nil.*

and it was incurred on the following heads :—

	Dhond & Manmad.	Wardha Coal.
	Rs.	Rs.
Land	156	
Bridge-work	362	
Fencing	12,899	
Ballast and Permanent-way	288	
Stations and Buildings	17,106	
Suspenses	33,286	
Total ...	64,097	...

The total expenditure from commencement of operations to end of 1893 was as under :—

	Dhond & Manmad.	Wardha Coal.
	Rs.	Rs.
Expenditure in England	43,77,793	9,47,839
Do. in India	67,59,332	40,39,850
	1,11,37,125	49,87,689

THE BERARS RAILWAYS (*Standard Gauge*).

The Capital transactions of the year represent refund of expenditure on account of sale of stores to the G. I. P. Railway as under :—

	Rs.
Khamgaon Railway	1,565
Amraoti Railway	252

the total Capital expenditure from the commencement of operations to end of 1893 was as follows:—

	Rs.
Khamgaon Railway	4,87,567
Amraoti Railway	4,49,908

B. B. & C. I. Railway (*Standard gauge*).

During the year there was no Capital raised or authorized. The Capital Account on 31st December 1893 was as follows:—

	£	£.	Rs.
Capital authorised—			
Share Capital	6,250,000		
Debenture bonds	3,663,500		
		9,913,500 =	10,81,47,272
Capital subscribed—			
Share Capital	6,250,000		
Debenture bonds converted into stock	1,300,300		
Debenture bonds at 3½ per cent...	1,238,500		
Capital not bearing interest ...	18,419		
		8,807,219 =	9,60,78,748
Capital Expenditure—			
On Construction account		8,602,387 =	9,38,44,218
„ Stores in suspense		233,474	25,46,994
„ Advances in suspense		—14,351	1,56,560
		£ 8,821,510	Rs. 9,62,34,652
Balance available of—			
Capital authorized		1,091,990	1,19,12,620
Capital subscribed		—14,291	—1,55,904

The expenditure on Construction account was incurred on—

	Rs.	Cost per open mile. Rs.
Way and Works	7,74,19,663	= 1,67,939
Rolling Stock	1,64,24,555	= 35,628
	9,38,44,218	2,03,567

Miles open including Patri Branch ... ... 461 miles.

The outlay during the year was incurred on the following principal works:—

	Rs.
Earth-work	14,073
Minor bidges...	7,065
Large bridges	32,089
Ballast	17,036
Permanent-way	67,057
Parel—Additional works in the Shops	6,093
Godhra—Water Cranes	4,721
Ahmedabad—Improvement of metre gauge station yard ...	3,973
Ahmedabad—Running room for the Rajputana-Malwa Railway guards	5,803
Crossing Stations on the line	6,190
Carroll Road—Draining firemen's quarters and rebuilding latrines	3,900
Quarters at crossing stations on the line	6,709
Plant	14,232
Rolling Stock ... Locomotive Stock	3,51,748
Rolling Stock ... Carriage and Wagon Stock... ...	3,30,830

The total Capital bearing interest to end of 1893 was Rs. 9,58,77,818 and the guaranteed interest paid to the Company during 1893 was Rs. 45,57,450 as under:—

	Rs.
Paid in England	45,54,731
Do. in India	2,719
Total ...	45,57,450

The net earnings of the year amounted to Rs. 96,74,791.

The Gaekwar's Railways.

The expenditure during 1893 is exhibited in the following table:—

Particulars.	Dabhoi Railway.	Petlad Railway.	Mehsana Railway.
	Rs.	Rs.	Rs.
Preliminary expenses	375	.....	169
Formation	.....	.....	4,679
Bridge work	.....	.....	5,177
Fencing	294	.....	1,864
Ballast and permanent-way	1,709	.....	—27,808
Stations and buildings...	1,296	.....	52,739
Plant	.....	.....	1,622
Rolling stock	1,991	.....	.....
General charges	2,216	.....	16,700
Suspense	—126	1,688	.....
Total ...	7,755	1,688	55,142

The total Capital outlay, including suspense from commencement of operations to end of 1893 was as follows:—

	Rs.
Dabhoi Railway	18,55,158
Petlad Railway	7,12,769
Mehsana Railway	30,26,752

Rajputana-Malwa Railway System (*Metre Gauge*).

The total Capital outlay on the whole system, including the Godhra-Rutlam and Palanpur-Deesa Railways, during and to end of 1893 was as follows:—

Heads of account.	Rajputana-Malwa Railway System.		Godhra-Rutlam Railway.		Palanpur-Deesa Railway.	
	During 1893.	To end of 1893.	During 1893.	To end of 1893.	During 1893.	To end of 1893.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Preliminary expenses	...	22,71,382	...	1,71,597	1,960	1,991
Land	39,091	13,18,694	3,716	15,864	...	...
Formation	6,160	72,40,745	18,25,603	39,68,833	62,831	62,837
Bridge-work	7,396	2,15,78,640	16,77,717	28,99,472	61,074	61,180
Fencing	81,109	26,30,731	39,997	57,649	4,984	4,984
Ballast and Permanent-way	52,142	3,70,84,522	6,63,507	14,44,414	1,25,220	1,87,859
Stations and Buildings	1,48,028	1,77,08,859	2,96,406	4,48,498	26,315	26,583
Plant	-13,163	28,50,214	7,515	7,515	3,898	4,443
Rolling Stock	50,185	2,06,31,875	...	.....	...	...
General Charges	...	83,33,217	1,92,123	5,08,891	12,884	14,076
Loss by Exchange	...	49,08,971	...	.....	...	...
Suspense	1,10,154	43,57,728	8,89,365	25,68,013	..	...
Total Direct Outlay ...	4,81,102	13,09,15,578	55,95,949	1,20,90,746	2,99,166	3,63,953
Indirect Outlay ...	...	17,86,415	...	.....	...	...
Grand Total ...	4,81,102	13,27,01,993	55,95,949	1,20,90,746	2,99,166	3,63,953

The capital expenditure during 1893, including suspense, was incurred on the :—

	Rs.
Rajputana-Malwa Railway	3,68,255
Holkar Railway	8,973
Rewari-Ferozpore Railway	16,591
Cawnpore-Achnera Railway	87,283
Godhra-Rutlam Railway	55,95,949
Palanpur-Deesa Railway	2,99,166
Total ...	63,76,217

For the construction of the Palanpur-Deesa line a sum of Rs. 1,85,000 was contributed by the Palanpur Darbar; of this amount Rs. 20,000 was spent in 1892 and the balance Rs. 1,65,000 in 1893. The capital outlay shown above is inclusive of the contribution.

Southern Mahratta Railway System (*Metre Gauge*).

(1).—*Southern Mahratta Railway.*

The Capital of the Company was increased during the year by £75,000 advanced by the Secretary of State, and stood as follows on the 31st December 1893 :—

Stock and Share Capital	£3,500,000	
Debentures...	£9,43,100	
	£4,443,100	=Rs. 5,43,17,200
Capital not bearing Interest	£30,957	=„ 4,33,392
Advances by the Secretary of State ...	£2,129,900	=„ 2,55,58,800
Total ...	£6,603,957	=Rs. 8,03,09,392
Capital Expenditure as noted below		Rs. 7,83,72,070
Balance available ...		Rs. 19,37,322

The expenditure of Rs. 7,83,72,070 was incurred as follows :—

	To end of 1893. Rs.	Cost per mile. Rs.
Way and Works	7,63,99,964	73,180
Rolling stock	1,03,25,113	9,889
General charges	64,74,851	6,202
	9,31,99,928	
Suspense Accounts	17,49,677	
	9,49,49,605	
Deduct—		
Government Expenditure on Bellary-Kistna Railway	1,65,77,535	
Total ...	7,83,72,070	
Miles open	1,044	

The debit of Rs. 17,49,677 under "Suspense" includes Rs. 3,77,943 as the Mysore State Railway share of the Joint Stores account which is now borne wholly on the Southern Mahratta Railway books.

Deducting this, leaves the suspense account of the Southern Mahratta Railway at Rs. 13,71,734 and the unexpended balance of Capital at Rs. 19,37,322 +Rs. 3,77,943=Rs. 23,15,265, at which sum the balance stood in the accounts of the Southern Mahratta Railway on 31st December 1893.

The total outlay during the year amounted to Rs. 7,01,672, of which Rs. 3,20,611 was an adjustment against works in order to write off the excess book value of the surplus construction stores of the Bellary-Kistna Railway.

The following are some of the principal works which were undertaken :—

	Rs.
Land	28,074
Extension of goods sheds and sidings	17,734
Workshops and store buildings at Hubli	21,528
Contribution to Hubli water-supply	89,000
Quarters for the Staff	42,529
Additional waterways, Bellary-Kistna Railway	23,956
Fencing	7,131

The following figures show the comparison of interest charges for 1893 with net earnings :—

Interest—	Rs.
On subscribed Capital at 3½ per cent.	19,49,137
On debentures at 3½ per cent.	1,43,253
Do. 3¼ „	3,58,948
On advances by Secretary of State	10,91,140
	35,42,478
Net earnings less contribution to the Provident Fund ...	23,14,816
Excess of interest over earnings	12,27,662

Mysore State Railway.

The Capital raised and expended stood as follows on the 31st December 1893.

Debentures	... £1,200,000=Rs.	1,60,61,569
Capital not bearing interest ...	... £24,000= „	3,21,232
Total	... £1,224,000=Rs.	1,63,82,801
Capital expenditure as noted below	... „	1,42,64,274
Balance available	...	21,18,527

The outlay of Rs. 1,42,64,274 was incurred as follows :—

	To end of 1893. Rs.	Cost per mile. Rs.
Way and Works	1,11,67,209	37,727
Rolling Stock	22,02,160	7,439
General Charges	8,94,656	3,022
	1,42,64,025	
Suspense Account ...	249	
Total ...	1,42,64,274	
Miles open		296

The sum of Rs. 1,42,64,274 excludes the sum of Rs. 3,77,943 representing the Mysore State Railway share of the Joint Stores account borne on the books of the Southern Mahratta Railway; allowing for which the unexpended balance of Capital is reduced from Rs. 21,18,527 to Rs. 17,40,584, with which sum the accounts of the Mysore State Railway closed on the 31st December 1893.

The outlay during the year on final heads amounted to Rs. 77,506 and the following were some of the principal works undertaken :—

	Rs.
Land	10,334
Additional machinery, Bangalore Shops	14,964
Watering arrangements, Bangalore and Arsikeri	8,577
Goods-sheds and sidings, Kadur, Holalkhere and Davengeri ...	12,466

The following figures show the comparison of interest charges for 1893 with net earnings :—

	Rs.
On debentures at 4 per cent.	7,70,439
Net earnings of the year less contribution to the Provident Fund	6,74,563
Excess of interest over net earnings	95,876

(3) *Mysore-Nanjangud Extension.*

The figures are as follows:—

	Rs.
Sanctioned estimates	5,92,144
Capital outlay to 31st December 1893	5,92,144

The outlay was incurred as follows:—

	To end of 1893. Rs.	Cost per mile. Rs.
Works	5,51,769	36,783
General charges	40,375	2,691

Miles open—15.

There were no large works undertaken on this section during the year; the transactions of the year comprising adjustments for stores returned from works resulted in a credit of Rs. 270 to the capital account.

(4) *Bangalore-Hindupur Section.*

This section was constructed by the Mysore Darbar at a cost of Rs. 23,50,000.

Miles open 51.

(5) *Kolhapur State Railway.*

This Railway was constructed by the Kolhapur Darbar: the Capital expenditure to end of December 1893 was Rs. 23,21,687 against sanctioned estimates aggregating Rs. 23,37,463.

Miles open—29.

(6) *Guntakal-Hindupur Railway.*

This Railway was constructed by the South Indian Railway from Imperial funds and its working was entrusted to the Southern Mahratta Railway Company.

The total expenditure to end of December 1893 was Rs. 58,32,137 against final heads of sanctioned estimates amounting to Rs. 79,34,170, and was incurred as follows:—

	To end of 1893. Rs.	Cost per mile. Rs.
Way and works	52,18,351	43,851
General charges	6,13,786	5,158

Miles open 119.

The outlay during the year amounted to Rs. 5,28, 942, most of which was incurred by the South Indian Railway in completing works before the Line was handed over to the Southern Mahratta Railway Company.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY (*Metre gauge*).

The total Capital outlay on final heads of account to the 31st December 1893 was Rs. 1,68,97,313-6-2. Including the amount held in suspense, viz., Rs. 3,43,951-4-0, the total capital outlay to the end of the year was Rs. 1,72,41,264-10-2. Deducting from this Rs. 12,404-0-5 on account of receipts

on capital account, the net capital outlay stood at Rs. 1,72,28,860-9-9 distributed as under over the four sections of the line :—

	Rs.	a.	p.
Bhavnagar State share	70,53,562	12	10
Gondal „	47,27,369	9	2
Junagad „	36,09,049	8	0
Porbandar „	18,38,878	11	9
Total ...	1,72,28,860	9	9

As the total expenditure under all heads at the end of 1892 stood at Rs. 1,72,52,029-12-5, the year's capital transactions show a net credit of Rs. 23,169-2-8.

The following statement shows the total capital outlay, including suspense, on each section to the end of 1893 and the interest charges thereon at 4 per cent. per annum :—

	Bhavnagar.	Gondal Porbandar.	Junagad.	Total.
	Rs.	Rs.	Rs.	Rs.
Capital outlay to end of 1893 ...	70,53,563	65,66,249	36,09,049	1,72,28,861
Interest on Capital outlay for 1893	2,81,797	2,63,140	1,44,681	6,89,618
Net earnings for 1893	5,76,215	2,74,105	38,786	8,88,708
Difference for 1893	+2,94,418	+10,965	—1,05,895	+1,99,090
Total interest from the beginning to end of 1893	34,81,216	21,25,777	7,73,680	63,80,673
Total net earnings to end of 1893.	43,45,971	16,13,303	2,31,201	61,88,630
Difference to end of 1893 ...	+8,64,755	—5,12,474	—5,42,479	—1,92,043

Morvi Railway (*2′ 6″ gauge*).

The total capital expenditure of the year amounted to Rs. 45,744-5-0, but there was a credit of Rs. 307-14-9, making the net expenditure Rs. 45,436-6-3.

The total capital outlay from commencement of operations to the end of the year on final heads of account was as under :—

	Rs.	a.	p.
Preliminary expenses	18,134	7	0
Land	1,171	7	9
Construction of line	6,50,657	3	2
Ballast and Permanent Way	9,52,357	10	7
Stations and Buildings	37,879	1	10
Plant	15,162	6	0
Establishment	1,02,846	13	0
Locomotive stock	1,40,203	8	3
Carriage and Wagon stock	2,07,554	7	5
Total ...	21,25,967	1	0

Besides this a sum of Rs. 31,706-1-0 was held on suspense account, making a total of Rs. 21,57,673-2-0 deducting from this the credit received during the year, the net capital outlay to the end of 1893 was Rs. 21,57,365-3-3.

Chapter VII.—Revenue Transactions.

(For the calendar year 1893.)

G. I. P. Railway (*Standard gauge.*)

The following table compares the details of earnings and working expenses for the year 1893 with those of 1892 :—

	1893.	1892.	Increase in 1893.	Decrease in 1893.
Earnings.	Rs.	Rs.	Rs.	Rs.
Coaching traffic	92,35,087	89,58,793	2,76,294	.....
Goods	2,92,03,680	3,13,19,876	.....	21,16,196
Electric telegraph	74,179	72,931	1,248	.....
Sundries...	3,00,795	3,14,027	.....	13,232
Total Earnings ...	3,88,13,741	4,06,65,627	.....	18,51,886
Working Expenses.				
Maintenance of way, works and stations	52,61,052	48,82,007	3,79,045	.....
Locomotive expenses ..	78,06,711	77,52,128	54,583	.....
Carriage and wagon expenses ...	19,19,589	20,43,153	.....	1,23,564
Traffic expenses	31,03,517	30,05,587	97,930	.....
General charges	13,18,952	13,26,787	.....	7,835
Special and miscellaneous expenditure	7,42,262	7,67,179	.....	24,917
Total ...	2,01,52,083	1,97,76,841	3,75,242	.....
Rent of leased lines	5,17,760	5,29,160	.....	11,400
Contributions to Provident Fund .	*1,24,604	1,41,317	.....	16,713
Total Working Expenses ...	2,07,94,447	2,04,47,318	3,47,129	.....
Net Earnings ...	1,80,19,294	2,02,18,309	.....	21,99,015

* Paid in January 1894.

The mean mileage worked during the year remained unaltered at 1490·08.

The gross earnings amounted to Rs. 3,88,13,741 as against Rs. 4,06,65,627 in the previous year, a decline of Rs. 18,51,886; while the working expenses increased from Rs. 2,04,47,318 to Rs. 2,07,94,447, *i.e.*, by Rs. 3,47,129, resulting in a falling off in net earnings of Rs. 21,99,015, *viz.* from Rs. 2,02,18,309 in 1892 to Rs. 1,80,19,294 in the year under review.

The number of passengers carried increased by 451,426, while the tonnage of goods carried decreased by 120,950.

The increase in coaching receipts corresponding to the increase of passengers amounted to Rs. 2,76,294, of which Rs. 1,98,999 were from 3rd Class passengers and were largely owing to the fairs held at Pandharpur. From 1st and 2nd Class passengers, excluding Troops and Police, the increase amounted to Rs. 44,759 due to larger average distances travelled and to ordinary fluctuations of traffic. Passenger luggage shows an increase of half a lakh of rupees, partly from conveyance of treasure and partly from the increase in ordinary passenger traffic. Minor increases appear under all the remaining sub-heads, except Troops and Police, which shows a falling off of Rs. 78,696, and Military baggage under which the falling off is Rs. 11,983, both decreases being due partly to the late arrival of one of the troop-ships which caused the special troop trains to be run in January 1894 instead of in December 1893, partly to the fact that during the trooping season of 1893 the port of Karachi was largely used for the debarkation of reliefs from England, and partly to decrease in the average distance travelled.

Goods receipts show a net decline of Rs. 21,16,196, principally made up of the following items :—

A decrease of Rs. 15,24,762 in cotton, raw, mostly due to short crops in Khandesh and the Berars, but the traffic was also adversely affected by a drop in the price of Indian cotton in the Home market which tended to restrict exports

and to lessen the activity which prevailed in this traffic towards the close of 1892; a decrease of Rs. 9,13,335 in wheat is also due to low prices in Europe, and to slackness of trade (consequent on the uncertainty of exchange); a decrease of Rs. 6,19, 217 in jowári and bájri and of Rs. 1,65,291 in rice, owing to the depletion of stocks in 1892 consequent upon the scarcity which prevailed during that year in the Madras Presidency; a decrease of Rs. 2,28,709 in gram and pulse, owing to a falling off of the supplies due to a smaller area under cultivation, wheat having been sown instead; and a decrease of Rs. 1,39,017 in provisions owing to a variety of causes. A satisfactory increase of 10,30,064 was realised from the traffic in oil-seeds, principally linseed, rape and mustard seeds, tilseed, and earthnuts, of all of which there were good crops and constant demands; an increase of Rs. 2,74,745 was realised from oils, principally kerosine-oil, imported into Bombay and forwarded up-country, and cocoanut oil; and an increase of Rs. 1,31,451 from drugs and chemicals other than opium.

Telegraph receipts are practically the same as those of the previous year, while Sundries show a decrease of Rs. 13,232 mostly in rents of stations jointly occupied, due to the fact that in 1892 a large recovery was made from the Bengal-Nagpur Railway for arrears of rent for the Nagpur junction.

The fluctuations in the earnings from the more important principal commodities carried during the year are shown in the following table :—

	Earnings in 1893.	Earnings in 1892.	Increase in 1893.	Decrease in 1893.
	Rs.	Rs.	Rs.	Rs.
Coal and coke for the public ...	2,51,446	2,33,646	17,800	.....
Cotton, raw	39,11,315	54,36,077	.....	15,24,762
Cotton, manufactured ...	14,17,971	13,97,609	20,362	.....
Drugs and Chemicals ...	2,64,485	1,31,034	1,33,451	.....
Dyes and Tans	4,97,269	5,06,383	.....	9,114
Wheat	42,24,423	51,37,758	.....	9,13,335
Rice	8,64,030	10,29,321	.....	1,65,291
Jowári and Bájri	5,87,959	12,07,176	.....	6,19,217
Gram and Pulse	4,37,359	6,66,068	.....	2,28,709
Other Food-grains	5,61,258	5,64,669	.....	3,411
Hides, Skins, and Horns ...	3,29,197	3,52,097	.....	22,900
Jute	2,93,453	3,11,361	.....	17,908
Liquors	1,53,059	1,41,561	11,498	.....
Metals and Hardware ...	7,88,344	7,10,603	77,741	.....
Oils (mineral and vegetable) ...	8,00,627	5,25,882	2,74,745	.....
Linseed	27,65,301	25,29,131	2,36,170	.....
Rape and Mustard seed ...	6,71,912	4,69,524	2,02,388	.....
Til or Jinjilli	8,64,305	7,69,997	94,308	.....
Other Oil-seeds	12,79,225	7,82,027	4,97,198	.....
Opium	1,25,281	1,44,466	.....	19,185
Paper and Pasteboard ...	1,06,403	98,498	7,905	.....
Dried Fruits and Nuts ...	6,44,830	8,49,243	.....	2,04,413
Other Provisions	5,26,284	4,60,888	65,396	.....
Railway Plant and Rolling Stock for the public	2,32,536	3,21,987	.....	89,451
Salt	16,58,340	16,72,412	.....	14,072
Spices	3,90,634	3,97,194	...	6,560
Stone and Lime	1,06,447	94,780	11,667	.....
Sugar	8,02,835	7,93,027	9,808	.....
Timber	5,20,631	5,19,820	811	.....
Tobacco	97,933	1,15,786	.....	17,853
Coal for Revenue	6,18,558	6,61,841	.....	43,283
Railway Materials for Revenue ...	8,84,052	8,67,551	16,501	.....
All other Articles of Merchandise.	13,22,694	11,62,703	1,59,991	.....
Total ...	2,90,00,396	3,10,62,120	18,37,740	38,99,464

The principal fluctuations in Working Expenses were :—

An increased expenditure of Rs. 3,79,045 in maintenance, Abstract A, due chiefly to heavier ballasting operations, larger issues of steel rails and pot sleep-

ers, less credits for old materials, loss by exchange, revenue extraordinary works in repairs of bridges and renewals of fencing, and repairs of stations and buildings notably at Byculla, Bhusawal, Barsi and Igatpuri. Locomotive expenses show a net increase of Rs. 54,583 made up principally of an increase of Rs. 2,12,449 for renewal of 15 locomotive engines as against 5 renewed in 1892; of an increase of Rs. 40,858 in loss by exchange, and of short outlay amounting to nearly two lakhs in running expenses, repairs of locomotive engines, carriage of revenue stores, repairs of machinery and tools, and loss on stores. Carriage and wagon expenses show a decrease of Rs. 1,23,564 mostly due to a smaller number of coaching renewals, to utilisation of second-hand in place of new materials, to smaller issues of buffer springs, to the different class of vehicles renewed, and to substitution of mineral axle oil instead of castor-oil for lubricating purposes. Traffic expenses show an increase of Rs. 97,930 notwithstanding that there was a falling off of 18½ lakhs in gross earnings; the increase is explained to be due to the following causes: Rs. 27,046 in station staff by the appointment of additional relieving station masters, to opening of new crossing stations and to extra staff employed at the principal stations; Rs. 22,532 in train staff partly due to increased number of guards employed, necessitated by the discontinuance of double trains and partly to increase in train mileage; Rs. 36,137 due to the issue of new tarpaulins to replace old ones returned to Store; and Rs. 10,868 due to loss by exchange. General charges and Special and Miscellaneous expenditure, Abstracts E and G., are less than the previous year by Rs. 7,835 and Rs. 24,917 respectively; the former is mostly due to a saving in the pay of the Police Superintendent who was temporarily absent from the line on special duty, and the latter to a saving in mileage and demurrage charges consequent on a falling off of foreign traffic received *vid* the East Indian Railway chiefly. Rent of leased lines and contributions to Provident Fund are less than the previous year by Rs. 11,400 and Rs. 16,713 respectively in consequence of the smaller earnings of 1893.

The percentage of working expenses on gross earnings was 53·58 in 1893, against 50·28 in 1892, and 48·62 in 1891: an increase of 3·30 per cent. over 1892 and of 4·96 per cent. over 1891.

The divisible surplus profits of the first half of 1893, at the date of submission of accounts, amounted to Rs. 58,45,793 as against Rs. 76,17,155 in 1892 and Rs. 1,03,52,684 in 1891. There were no surplus profits in the second half of 1893, the net earnings, amounting to Rs. 55,72,988, excluding rent of leased lines, having fallen short of the guaranteed interest of Rs. 65,77,496 by Rs. 10,04,508.

After deducting from the net earnings of the year the Company's moiety of surplus profits, charges for guaranteed interest, rent of leased lines, contributions to Provident Fund, interest on overdrawn Capital and irrecoverable outstandings written off, the net result shows a gain to the State of Rs. 19,18,723 as against a gain of Rs. 32,86,836 in 1892 and of Rs. 48,74,813 in 1891.

The chief features of the year's transactions are compared with those of 1892 in the following table :—

	1893.	1892.	Increase in 1893.	Decrease in 1893.
	Rs.	Rs.	Rs.	Rs.
Gross earnings	3,88,13,741	4,06,65,627	...	18,51,886
Working expenses	2,07,94,447	2,04,47,318	3,47,129	...
Net earnings...	1,80,19,294	2,02,18,309	...	21,99,015
Percentage of expenses on gross earnings	53·57	50·28	3·29	...
	No.	No.	No.	No.
Train mileage, including train mileage of foreign lines worked by Company.	9,894,358	9,785,576	108,782	...
Open mileage worked by Company ...	1,490·08	1,490·08	...	...

	1893.	1892.	Increase in 1893.	Decrease in 1893.
	Rs.	Rs.	Rs.	Rs.
Gross earnings per train mile ..	3·91	4·16	...	0·25
Expenses per train mile	2·10	2·09	0·01	...
Net earnings per train mile ...	1·81	2·07	...	0·26
Gross earnings per open mile ...	26,048·00	27,291·00	...	1,243·00
Expenses per open mile	13,955·00	13,722·00	233·00	...
Net earnings per open mile ...	12,093·00	13,569·00	...	1,476·00
Percentage of net earnings on total Capital bearing interest, Rs. 28,00,62,000 in 1893 and Rs. 27,72,30,000 in 1892 ...	6·43	7·29	...	0·86

DHOND AND MANMAD AND WARDHA COAL STATE RAILWAYS (*Standard gauge*).

The results of the year's transactions as compared with the previous year are shown in the following table :—

Particulars.	Dhond and Manmad Railway.			Wardha Coal Railway.		
	1892.	1893.	Difference.	1892.	1893.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	12,18,412	12,90,798	72,386	2,32,986	2,10,856	—22,130
Working expenses ...	8,90,077	9,42,226	52,149	1,98,890	1,21,643	—77,247
Net earnings	3,28,335	3,48,572	20,237	34,096	89,213	+55,117
Percentage of expenses on earnings	73·06	72·99	—0·07	85·37	57·69	—27·68
	Train miles.	Train miles.	Train miles.	Train miles.	Train miles.	Train miles.
Train mileage	423,901	506,506	82,605	87,476	113,699	26,223
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile .	2·87	2·55	—0·32	2·66	1·85	—0·81
Expenses per train mile .	2·10	1·86	—0·24	2·27	1·07	—1·20
Net earning per train mile	0·77	0·69	—0·08	0·39	0·78	+0·39
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Open miles	145·44	145·44	.....	44·88	44·88	.....
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Earnings per open mile .	8,377	8,875	498	5,191	4,698	—493
Expenses per open mile.	6,119	6,478	359	4,431	2,710	—1,721
Net earnings per open mile	2,258	2,397	139	760	1,988	+1,228
Percentage of net earnings on total Capital outlay including suspense	2·97	3·13	0·16	0·68	1·79	1·11

The working expenses shown above for the Dhond and Manmad State Railway consist of the following :—

	1892.	1893.
	Rs.	Rs.
(*a*) Amount paid to the G. I. P. Railway Company based on the sliding scale of percentages ...	8,77,257	9,29,375
(*b*) Amount paid to Government Telegraph Department for interest on Capital cost of Telegraph Line	7,761	7,761
(*c*) Amount paid to G. I. P. Railway Company for interest on Capital cost on Dhond and Manmad permanent staff quarters	5,059	5,090
Total ...	8,90,077	9,42,226

The working expenses of the Wardha Coal State Railway, shown above, consist of the following:—

	1892.	1893.
	Rs.	Rs.
(*a*) Paid to the Company at their rate of working expenses on gross receipts	1,13,763	1,09,615
(*b*) 5 per cent. for use of Company's rolling stock...	11,649	10,543
(*c*) Amount paid to the Government Telegraph Department for interest and rent, &c. ...	1,485	1,485
(*d*) Cost of sleepers paid to the Company, *vide* Bombay Government Resolution No. 2498 of 21st November 1891	71,993	...
Total ...	1,98,890	1,21,643

Traffic and Working.

The Revenue derived during 1893 is compared with that of the preceding year in the following table:—

Particulars.	Dhond and Manmad.			Wardha Coal.		
	1892.	1893.	Difference.	1892.	1893.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	5,71,923	6,39,411	67,488	39,630	40,193	563
Goods	6,35,090	6,42,871	7,781	1,90,868	1,68,082	—22,786
Electric Telegraph ...	1,852	2,302	450	1,223	1,149	—74
Sundries...	9,547	6,214	—3,333	1,265	1,432	167
Total ...	12,18,412	12,90,798	72,386	2,32,986	2,10,856	—22,130

The following statement shows the receipts derived from the several classes of passengers during 1893 compared with 1892:—

	Dhond and Manmad.						Wardha Coal.					
	1892.		1893.		Difference.		1892.		1893.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
First Class	2,397½	12,343	2,736½	13,859	339	1,516	273½	768	341½	1,029	68	261
Second Class	7,593	18,189	12,705½	25,948	5,112½	7,759	371	501	418½	607	47½	106
Third Class by Mail...	...	...	...	...	...	...	214½	130	223½	154	9	24
Third Class by other trains...	6,40,689½	4,85,755	707,093½	5,35,278	66,404	49,523	137,002½	36,001	133,870½	36,003	—3,132	2
Total ...	6,50,680	5,16,287	722,535½	5,75,085	71,855½	58,798	137,861½	37,400	134,854	37,793	—3,007½	393
Other Receipts ...	...	55,636	...	64,326	...	8,690	...	2,230	...	2,400	...	170
Total, Coaching ...	6,50,680	5,71,923	722,535½	6,39,411	71,855½	67,488	137,861½	39,630	134,854	40,193	—3,007½	563

The goods traffic during 1893 under each of the classified heads is compared with the year 1892 in the subjoined statement:—

Particulars.	Dhond and Manmad.			Wardha Coal.		
	1892.	1893.	Difference.	1892.	1893.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Merchandize, general ...	5,99,010	5,99,961	951	85,767	69,327	—16,440
Military stores	17,800	16,580	—1,220	3	6	3
Railway material for construction	25	125	100	.....	.....	.....
Coal	8,316	13,197	4,881	1,02,489	97,389	—5,100
Revenue stores	5,375	7,208	1,833	1,788	1,009	—779
Other items	4,564	5,800	1,236	821	351	—470
Total ...	6,35,090	6,42,871	7,781	1,90,868	1,68,082	—22,786

It will be seen from the above that the increase on Dhond and Manmad State Railway is chiefly due to the traffic in carriage of coal and revenue stores, and the decrease on the Wardha Coal State Railway is under General Merchandize and carriage of coal. The Company do not furnish the details of commodities carried.

THE BERARS RAILWAYS—(*Standard Gauge*).

These lines are worked by the G. I. P. Railway Company. The results of the year's transactions are compared with those of 1892 in the following table :—

Particulars.	KHAMGAON.			AMRAOTI.		
	1892.	1893.	Difference.	1892.	1893.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	65,548	51,004	—14,544	1,05,762	1,02,043	—3,719
Working expenses	34,640	29,307	—5,333	57,124	58,987	+1,863
Net earnings	30,908	21,697	—9,211	48,638	43,056	—5,582
Percentage of expenses on earnings	52·85	57·46	4·61	54·01	57·81	3·80
	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.
Train mileage	12,576	11,776	—·800	17,514	21,918	+4,404
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile	5·21	4·33	—0·88	6·04	4·65	—1·39
Expenses per train mile	2·75	2·49	—0·26	3·26	2·69	—0·57
Net receipts per train mile ...	2·46	1·84	—0·62	2·78	1·96	—0·82
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles..
Open miles	7·55	7·55	...	5·44	5·44	...
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Earnings per open mile	8,682	6,755	—1,927	19,441	18,758	—683
Expenses open mile	4,588	3,882	—706	10,500	10,843	+343
Net earnings per open mile ...	4,094	2,873	—1,221	8,941	7,915	—1,026
Percentage of net earnings on total capital outlay, including suspense	6·32	4·45	—1·87	10·80	9·57	—1·23

The working expenses shown above consist of the following :—

	KHAMGAON.		AMRAOTI.	
	1892.	1893.	1892.	1893.
	Rs.	Rs.	Rs.	Rs.
Paid to the Company at their rate of working expenses on gross receipts ...	31,362	26,757	50,951	52,999
5 Per cent. for use of Companys rolling stock	3,278	2,550	5,288	5,102
Interest on capital cost of additional short platform at Badnera Station ...	...	...	885	885
Total ...	34,640	29,307	57,124	58,986

Traffic and Working.

The figures for 1893 under the four main heads of receipts are compared in the subjoined table :—

	Khamgaon Railway.			Amraoti Railway.		
	1892.	1893.	Difference.	1892.	1893.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	12,750	12,424	—326	28,174	30,892	+2,718
Goods	52,434	38,245	—14,189	75,413	69,893	—5,520
Electric Telegraph	118	99	—19	2,148	1,209	—939
Sundries	246	236	—10	27	49	22
Total ...	65,548	51,004	—14,544	1,05,762	1,02,043	—3,719

The coaching receipts for the year under review were derived from—

	Khamgaon Railway.						Amraoti Railway.					
	1892.		1893.		Difference.		1892.		1893.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
First Class	359½	180	313	158	—46½	—22	980½	358	1,179½	434	199	76
Second Class	983	245	1,028½	256	+45½	+11	5,625½	1,045	5,795½	1,089	170	35
Third Class by other trains	105,599	11,580	103,389	11,354	—2,210	—226	323,441½	25,364	354,576	27,776	31,134½	2,412
Total ..	106,941½	12,005	104,730½	11,768	—2,211	—237	330,047½	26,767	361,551	29,290	31,503½	2,523
Other receipts	...	745	...	656	...	—89	...	1,407	...	1,602	...	195
Total ...	106,941½	12,750	104,730½	12,424	—2,211	—326	330,047½	28,174	361,551	30,892	31,503½	2,718

The goods traffic during 1893 under each of the classified heads is as follows :—

Particulars.	Khamgaon Railway.			Amraoti Railway.		
	1892.	1893.	Difference.	1892.	1893.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Merchandize, general	51,952	37,753	—14,199	73,369	68,020	—5,349
Military stores	...	...	...	62	59	—3
Railway material for Construction	...	...	...	2	...	—2
Coal	241	279	+38	1,114	972	—142
Revenue stores	6	9	+3	4	9	+5
Other goods traffic	235	204	—31	862	833	—29
Total ...	52,434	38,245	—14,189	75,413	69,893	—5,520

It will be seen from the above that the decrease both on the Khamgaon and Amraoti Railways is chiefly due to the falling off in general merchandise traffic. The details of commodities carried are not furnished by the Company.

Coaching Traffic.—The increase is principally due to the increase in 3rd class passenger traffic as will be seen from the following table. The passenger traffic in 1st, 2nd and Intermediate Class and receipts from other sources have also contributed slightly towards the increase.

Traffic and Working.

The following table compares the coaching traffic during 1893 with that of 1892 :—

	1892.		1893.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First Class	109,185	1,29,893	105,968	1,41,604	—3,217	+11,711
Second Class	1,050,225	3,31,888	1,037,144	3,48,588	—13,081	+16,700
Intermediate Class	449,314	7,73,901	480,016	7,78,615	+30,702	+4,714
Third Class	13,002,913	28,84,980	13,128,532	30,79,362	125,619	+1,94,382
Total ...	14,611,637	41,20,662	14,751,660	43,48,169	1,40,023	2,27,507
Other receipts	.....	5,36,834	.....	6,07,545	.....	+70,711
Total ...	14,611,637	46,57,496	14,751,660	49,55,714	1,40,023	2,98,218

The increase under " other receipts " is chiefly derived from traffic in parcels carried for the public.

The total increase shown above was derived from—

	No.	Rs.
Ordinary passenger traffic ...	... 194,313	2,23,421
Season tickets	... —54,290	4,086
Other receipts	... ...	70,711
	140,023	2,98,218

The following table shows the fluctuations in Goods traffic as compared with the traffic for 1892.

The Goods traffic during 1893 under each of the classified heads is as follows :—

	1892.		1893.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General Merchandize...	1,145,963	83,34,302	1,233,838	90,34,731	+87,875	+7,00,429
Military stores	880	30,382	575	18,916	—305	—11,466
Railway material for construction	25,422	20,090	26,397	36,226	+975	+7,136
Coal for Public	46,810	2,58,871	42,025	2,32,475	—4,785	—26,396
Coal for construction	40	6	459	782	+419	+776
Coal for Revenue	53,688	1,31,609	52,955	1,14,430	—733	—17,179
Revenue stores	138,009	1,51,829	99,165	1,06,860	—38,844	—44,969
	No.		No.		No.	
Live stock	486,916	3,56,555	496,801	3,36,659	+9,885	—19,896
Rents, &c.	.....	6,501	.....	10,545	.....	+4,044
	Tons.		Tons.		Tons.	
Total ...	1,410,812	92,99,145	1,455,414	98,91,624	+44,602	+5,92,479

It will be seen from the above that almost the entire increase has occurred in general merchandize both in tonnage and amount. The carriage of Railway material and coal for construction, and receipts from rents, &c., have also slightly contributed towards the increase. The increase is, however, partly counterbalanced by decreases in carriage of Revenue stores, coal for public and for Revenue, live stock and Military stores. The increase in general merchandize has principally occurred in oil-seeds received from stations beyond Sabarmati.

BOMBAY BARODA AND CENTRAL INDIA RAILWAY—(*Standard Gauge*).

The result of the year's transactions as compared with 1892 is shown in the subjoined table:—

	1892.	1893.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	1,42,44,478	1,50,96,045	8,51,567
Working expenses	60,31,388	54,21,254	—6,10,134
Net earnings	82,13,090	96,74,791	14,61,701
Percentage of expenses on earnings ...	42·35	35·91	—6·44
	T. miles.	T. miles.	T. miles.
Train mileage	25,87,585	24,29,535	—1,08,050
	Rs.	Rs.	Rs.
Receipts per train mile	5·61	6·21	+0·60
Expenses per train mile	2·38	2·23	—0·15
Net receips per train mile	3·23	3·98	+0·75
	Miles.	Miles.	Miles.
Open miles...	461	461	.....
	Rs.	Rs.	Rs.
Receipts per open mile...	30,899	32,746	+1,847
Expenses per do.	13,083	11,760	—1,323
Net receipts per do.	17,816	20,986	+3,170
Percentage of net earnings on capital bearing interest	8·57	10·09	+1·52

The following table gives the details of earnings and working expenses for the year 1893 as compared with 1892 :—

	1892.	1893.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	46,57,496	49,55,714	2,98,218
Goods	92,99,145	98,91,624	5,92,479
Electric Telegraph	46,457	49,986	3,529
Sundries	2,41,380	1,98,721	—42,659
Total ...	1,42,44,478	1,50,96,045	+8,51,567
Working Expenses.			
Maintenance of way, works and stations ...	16,41,575	12,05,192	—4,36,383
Locomotive expenses	19,68,271	19,71,594	3,323
Carriage and wagon expenses	8,23,793	6,61,657	—1,62,136
Traffic expenses	8,32,911	9,04,898	71,987
General Charges	5,82,040	5,56,337	—25,703
Special and miscellaneous expenditure ...	1,82,798	1,21,576	—61,222
Total ...	60,31,388	54,21,254	—6,10,134
Net Earnings ...	82,13,090	96,74,791	+14,61,701

Earnings.

Compared with 1892 the traffic of 1893 shows an increase of Rs. 8,51,567.

The decrease under carriage of coal for the public is due to less coal carried for Rajputana-Malwa Railway, and under carriage of coal for Revenue is due to the coal being carried shorter distances. The decrease under carriage of Revenue stores is principally due to fewer ballast trains run for the Engineering Department.

The fluctuations in the more important commodities carried during 1892 and 1893 are shown in the following statement :—

	1892.	1893.	Difference.
	Tons.	Tons.	Tons.
Coal and coke	46,810	42,025	—4,785
Cotton	138,633	141,177	+2,544
Dyes and Tans	6,228	8,392	+2,164
Grain and pulse	244,403	196,958	—47,445
Jute	7,956	7,433	—523
Metals	29,354	29,671	+317
Oils	7,176	9,842	+2,666
Oil-seeds	111,117	217,116	+105,999
Provisions	39,502	44,150	+4,648
Railway Material and Rolling Stock ...	29,265	26,220	—3,046
Salt	135,251	144,233	+8,982
Spices	8,401	9,406	+1,005
Stone and Lime	28,873	29,865	+992
Sugar	39,948	42,504	+2,556
Timber	29,646	33,878	+4,232
Tobacco	17,697	15,271	—2,426

The decrease under Sundry Earnings is principally due to the smaller receipts in the first half of 1893 on account of mileage of vehicles over foreign lines.

Working Expenses.

Maintenance of Way, Works and Stations.—The decrease is due partly to the absence of expenditure on renewals with steel rails and repairs to monsoon damages and partly to the large credits for sale of old rails to the Government Telegraph Department and Godhra-Rutlam Railway. Owing to the smaller consumption of English stores during 1893, loss by Exchange has also contributed towards the decrease.

Locomotive Expenses.—The increase is small and calls for no special remark.

Carriage and Wagon Expenses.—The decrease is chiefly due to the less renewals and lighter repairs of coaching and goods vehicles. Loss by Exchange has also contributed towards the decrease.

Traffic Expenses.—The increase is partly due to the additional staff engaged for working the Godhra-Rutlam Railway and on account of the increase traffic and partly to large issues of new sheets.

General Charges.—The decrease is due to the commission and stamp charges in connection with fresh debentures having been included in the accounts for 1892.

Special and Miscellaneous Expenditure.—The decrease is due to the heavy claims for goods damaged and personal injuries paid in 1892 and also absence of expenditure in 1893 on surveys.

General Results.

The total amount payable to the Company on account of surplus profits in comparison with 1892 is shown in the following table :—

	1892.	1893.
	Rs.	Rs.
Net earnings	82,13,090	96,74,791
Deduct—		
Guaranteed Interest	45,57,450	45,57,450
Interest on overdrawn Capital	.....	1,519
Contribution to Provident Fund	82,131	96,748
Total ...	46,39,581	46,55,717
Balance Surplus Profits ...	35,73,509	50,19,074
Moiety payable to the Company ...	17,86,754	25,09,537
Add—Guaranteed Interest ...	45,57,450	45,57,450
(*a*) Total payable to the Company ...	63,44,204	70,66,987
Percentage of total Capital bearing interest, viz., Rs. 9,58,77,818 for 1893	6·62	7·37
(*b*) Amount payable to the Company for Rajputana-Malwa Railway ($\frac{1}{5}$ surplus profits for 1893)	13,52,990	13,12,591
Total payable to the Company (*a*+*b*) ...	76,97,194	83,79,578
Percentage on total capital bearing interest	8·03	8·74

The Gaekwar's Railways.

The chief features of the year's transactions are compared with those for 1892 in the following table :—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1892.	1893.	Difference.	1892.	1893.	Difference.	1892.	1893.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	2,38,608	2,52,106	+13,498	61,242	63,953	+2,711	2,58,963	3,36,860	+77,897
Working expenses	1,32,098	1,19,599	—12,499	26,485	23,326	—3,159	1,05,958	1,38,608	+32,650
Net earnings	1,06,510	1,32,507	+25,997	34,757	40,627	+5,870	1,53,005	1,98,252	+45,247
Percentage of working expenses to earnings	55·36	47·44	—7·92	43·25	36·47	—6·78	40·92	41·15	0·13
	T. Miles.	T. Miles.	T. Miles.	T. Miles.	T. Miles.	T. Miles.	T. Miles.	T. Miles.	T. Miles.
Train miles	89,141	88,757	—344	19,530	19,451	—79	92,359	1,01,374	+9,015
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile... ...	2·68	2·84	+0·16	3·13	3·29	+0·16	2·80	3·32	+0·52
Expenses do.	1·48	1·35	—0·13	1·35	1·20	—0·15	1·14	1·37	+0·23
Net receipts do.	1·20	1·49	+0·29	1·78	2·09	+0·31	1·66	1·95	+0·29
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Open miles	72	72	...	13	13	...	92·63	92·63	...
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per open mile	3,314	3,501	+187	4,711	4,919	+208	2,784	3,636	+852
Expenses do.	1,835	1,661	—174	2,637	1,794	—248	1,139	1,496	+357
Net receipts do.	1,479	1,840	+361	2,674	3,125	+451	1,645	2,140	+495
Percentage of net earnings on total Capital expended, including Suspense	5·77	7·14	+1·37	4·89	5·70	+0·81	5·15	6·55	1·40

The gross earnings and working expenses for the two years 1892 and 1893 are compared in the following table :—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1892.	1893.	Difference.	1892.	1893.	Difference.	1892.	1893.	Difference.
Earnings.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	1,32,006	1,41,324	+9,318	42,151	45,345	+3,194	1,25,151	1,50,651	+25,470
Goods	1,04,276	1,08,801	+4,525	18,583	17,539	—1,044	1,31,820	1,84,608	+52,788
Electric Telegraph.	1,626	1,631	+5	508	644	+136	1,408	1,621	+213
Sundries	700	350	—350	...	425	+425	584	10	—574
Total ...	2,38,608	2,52,106	+13,498	61,242	63,953	+2,711	2,58,963	3,36,860	+77,897

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1892.	1893.	Difference.	1892.	1893.	Difference.	1892.	1893.	Difference.
Working Expenses.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Maintenance of way, works and stations ...	46,494	36,868	—9,626	7,191	5,182	—2,009	18,827	23,468	+4,641
Locomotive expenses	34,363	36,695	+2,332	8,562	8,468	—94	46,617	57,975	+11,358
Carriage and Wagon expenses ...	16,029	11,175	—4,854	3,713	2,825	—888	9,363	14,175	+4,812
Traffic expenses ...	20,681	22,583	+1,902	3,668	3,922	+254	16,279	22,483	+6,204
General charges...	12,073	12,276	+203	2,558	2,406	—152	13,358	17,728	+4,370
Special and Miscellaneous expenditure	2,458	2	—2,456	793	523	—270	1,514	2,779	+1,265
Total ...	1,82,098	1,19,599	—12,499	26,485	23,326	—3,159	1,05,958	1,38,608	+32,650
Net Earnings...	1,06,510	1,32,507	+25,997	34,757	40,627	+5,870	1,53,0[illegible]5	1,98,252	+32,650

Earnings.

The following table compares the coaching traffic during 1893 with that of 1892:—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	Passengers.		Other Receipts.	Passengers.		Other Receipts.	Passengers.		Other Receipts.
	No.	Rs.	Rs.	No.	Rs.	Rs.	No.	Rs.	Rs.
1892	418,016	1,27,386	4,620	230,641	40,545	1,606	490,702	1,18,269	6,882
1893	450,007	1,35,870	5,454	245,539	43,467	1,878	573,585	1,42,109	8,512
Difference...	+31,991	+8,484	+834	+14,898	+2,922	+272	+82,883	+23,840	+1,630

The increase on all the Railways in the number of passengers carried and the earnings therefrom is chiefly in the lower class of passengers.

The following table shows the receipts from goods traffic during 1893 compared with those of 1892 under the classified heads:—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1892.	1893.	Difference.	1892.	1893.	Difference.	1892.	1893.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Merchandise, general ...	1,02,329	1,05,097	+2,768	17,986	17,038	—948	1,28,157	1,83,051	+54,894
Military stores ...	...	...	...	...	...	...	6	8	+2
Railway material for construction	92	64	—28	...	...	...	2,947	16	—2,931
Coal for Public.	139	779	+640	4	...	—4	14	22	+8
Do. for Revenue	168	119	—49	...	45	+45	...	...	...
Revenue stores.	1,293	2,148	+855	...	...	...	...	6	+6
Live-stock ...	55	191	+136	324	259	—65	99	814	+715
Rents, &c. ...	200	403	+203	269	197	—72	597	691	+94
Total ...	1,04,276	1,08,801	+4,525	18,583	17,539	—1,044	1,31,820	1,84,608	+52,788

The tonnage lifted during the year 1893 compared with that of 1892 will be found in the following table:—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1892.	1893.	Difference.	1892.	1893.	Difference.	1892.	1893.	Difference.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Merchandise general ...	51,583	50,050	—1,533	21,616	21,179	—437	93,583	132,648	+39,065
Military stores ...	...	...	...	...	...	...	1	3	+2
Railway material for construction	294	124	—170	...	...	...	5,262	36	—5,226
Coal for Public...	104	527	+423	5	...	—5	7	11	+4
Do. for Revenue.	285	206	—79	...	158	+158	...	...	...
Revenue stores ...	2,881	4,549	1,668	...	...	...	...	22	+22
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Live-stock ...	714	3,390	2,676	2,200	1,298	—902	860	11,588	+10,728
Total ...	55,147	55,456	+309	21,621	21,337	—284	98,853	132,720	+33,867

Dabhoi Railway.—The tonnage of goods carried was more by 309 tons and the earnings therefrom were also more by Rs. 4,525. The improvement is due chiefly to carriage of revenue stores and live-stock. Small increases in cotton, wheat, timber and fire-wood were more than counterbalanced by a falling off in oilseeds and stones and limes.

Petlad Railway.—The tonnage of goods carried was less by 284 tons and the earnings therefrom were also less by Rs. 1,044. The decrease has chiefly occurred in "Tobacco" and "Stone and Lime," while the increases were in "Grain and Pulse" and "Oil-seeds."

Mehsana Railway—There was a great improvement in Goods traffic (chiefly grains, oil-seeds and salt) the increase in quantity carried and earnings therefrom being tons 39,065 and Rs. 54,894, respectively, the traffic in live-stock was also better. The decrease in Railway material for construction was due to completion of capital works on the line.

The fluctuations in the more important commodities are shown in the following table:—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1892.	1893.	Difference.	1892.	1893.	Difference.	1892.	1893.	Difference.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Cotton	5,394	5,916	+522	1,543	1,190	—353	1,433	794	—639
Wheat	483	1,157	+674	...	...	...	2,351	955	—1,396
Other grains ...	8,691	8,177	—514	881	2,306	+1,425	16,783	32,357	+15,574
Firewood	2,565	3,270	+705	...	...	...	304	1,744	+1,440
Mowra flowers ...	9,103	9,238	+135	...	...	...	87	132	+45
Oil-seeds	4,558	2,833	—1,725	372	1,247	+875	18,329	36,372	+18,043
Stones and Lime ...	5,882	4,210	—1,672	2,636	1,230	—1,406	1,023	1,173	+150
Salt	2,259	2,115	—144	798	777	—21	30,122	35,704	+5,582
Sugar and Jágri ...	1,203	1,313	+110	826	694	—132	8,211	7,735	—476
Timber	2,231	2,805	+574	1,665	1,830	+165	2,750	2,870	+120
Tobacco	...	...	...	7,659	6,227	—1,432	366	274	—92
Other articles ...	5,220	5,500	+280	3,057	3,893	+836	11,832	12,552	+720

Working Expenses.

Dabhoi Railway.—The decrease under "Maintenance" is due chiefly to the abnormal expenditure in 1892 for re-building culverts and to repairs done to the line damaged by floods. The increase under "Locomotive" is due to the two

engines having been repaired against one in the previous year. The decrease under "Carriage and Wagon" is the result of heavier repairs and renewals of coaching and goods vehicles during 1892. The increase under "Traffic Expenses" is due to the issue of new wagon covers and ropes. The increase under General Charges is small and calls for no remark. The decrease under "Special and Miscellaneous Expenditure" is due to large claims paid in 1892 for compensation claims for goods lost and damaged.

Petlad Railway.—The fluctuations in working expenses are due to the decrease in percentage of expenses on gross earnings during 1893 on the Company's own undertaking. The expenses on this Railway are based on the same percentage of expenses on gross earnings as obtained on the B. B. & C. I. Railway.

Mehsana Railway—The increase in working expenses is due to increase in traffic, the expenses being taken at the same percentage of expenses to earnings as obtains on the Rajputana-Malwa Railway.—

RAJPUTANA-MALWA RAILWAY SYSTEM (*Metre gauge*).

The working results of the year's transactions, as compared with those of 1892, are shown in the following table :—

	1892.	1893.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	2,24,00,454	2,25,70,685	1,70,231
Working expenses	91,85,679	92,81,585	95,906
Net earnings	1,32,14,775	1,32,89,100	74,325
Percentage of working expenses to earnings ...	41·01	41·12	0·11
	T. Miles.	T. Miles.	T. Miles.
Train mileage	6,755,454	6,565,897	—189,557
	Rs.	Rs.	Rs.
Receipts per train mile	3·32	3·44	0·12
Expenses do.	1·36	1·41	0·05
Net Receipts do.	1·96	2·03	0·07
	Miles.	Miles.	Miles.
Open miles	1,674·018	1,674·018	Nil.
	Rs.	Rs.	Rs.
Receipts per open mile	13,381	13,483	102
Expenses do.	5,487	5,545	58
Net receipts do.	7,894	7,938	44
Percentage of net earnings on total Capital outlay, excluding indirect charges	9·65	10·15	0·50

The gross earnings and working expenses for the two years 1892 and 1893 are compared in the following table :—

	1892.	1893.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	62,03,640	66,35,953	4,32,313
Goods	1,55,67,081	1,55,92,268	25,187
Electric Telegraph	62,777	64,560	1,783
Sundries	5,66,956	2,77,904	—2,89,052
Total ...	2,24,00,454	2,25,70,685	1,70,231
Working Expenses.			
Maintenance of way, works and stations ...	16,33,157	15,70,712	—62,445
Locomotive expenses	40,33,686	38,84,558	—1,49,128
Carriage and Wagon expenses	8,13,294	9,48,608	1,35,314
Traffic expenses	14,12,757	15,05,304	92,547
General charges	11,61,480	11,86,318	24,838
Special and Miscellaneous expenditure ...	1,31,305	1,86,085	54,780
Total ...	91,85,679	92,81,585	95,906
Net Earnings ...	1,32,14,775	1,32,89,100	74,325

The decrease under "Maintenance of way, works and stations" was principally due to heavier expenditure incurred in 1892 on watering arrangements rendered necessary by scanty rains in Rajputana. The decrease under "Locomotive expenses" was due partly to less train mileage run and partly to an abnormal credit received from the East Indian Railway for rebate on freight on coal. The increase in the "Carriage and Wagon expenses" was chiefly under "Repairs and Renewals of Vehicles". The increase in traffic expenses was due partly to adjustment of arrear charges for stationery and forms and partly to abnormal credits received in 1892 from the East Indian, Indian Midland and North-Western Railways, for joint station expenses. The increase in "General charges" was due partly to unfavourable rate of Exchange and establishment charges of the Company's Board of Directors being higher, and partly to adjustment of supervision charges of Assistant Inspector-General of Police, North-West Provinces and Oudh. The increase in "Special and Miscellaneous expenditure" was due partly to heavier claims for compensation and partly to arrears of shunting charges at Cawnpore amounting to Rs. 34,450 paid to the East Indian Railway.

The following figures show the result of the year's working as compared with 1892:—

	1892. Rs.	1893. Rs.
Net earnings	1,32,14,775	1,32,89,100
Interest	64,54,574	67,59,610
Gross divisible surplus	67,64,948	65,62,957
⅕th share payable to the Company ...	13,52,990	13,12,591

Traffic and Working.

The total open mileage on 31st December 1893 was 1,674·018 and the mean mileage worked by the Company during 1893 was the same.

The following statement shows the receipts under coaching derived from several classes of passengers, and the number carried:—

	1892.		1893.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First class	16,382	1,25,708	17,115	1,22,467	733	—3,241
Second class	69,496	1,89,371	74,465	1,95,013	4,969	5,642
Intermediate class	245,581	2,85,269	250,084	2,95,674	4,503	10,405
Third class...	8,651,323	50,64,896	9,728,809	53,92,788	1,077,486	3,27,892
Total ...	8,982,782	56,65,244	10,070,473	60,05,942	1,087,691	3,40,698
Other Receipts	.....	5,38,396	.....	6,30,011	.....	91,615
Total Coaching ...	8,982,782	62,03,640	10,070,473	66,35,953	1,087,691	4,32,313

There was a general improvement in passenger traffic both as to number and receipts except from the 1st class, the receipts from which fell off although the number increased, owing to shorter distances travelled.

The following table shows the goods traffic during 1893 compared with that of 1892 under the classified heads:—

	1892.		1893.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Merchandise, general	1,474,890	1,46,19,195	1,568,079	1,47,36,050	93,189	1,16,855
Military stores	6,154	1,40,079	5,381	93,529	—773	—46,550
Railway material for Construction	72,019	1,93,381	102,780	2,09,919	30,761	16,538
Coal for public	8,542	62,884	7,607	45,544	—935	—17,340
Do. for Construction only ...	2,203	10,216	2,468	10,931	265	715
Do. for Revenue	93,317	3,39,009	85,484	3,07,192	—7,833	—31,817
Revenue stores	55,754	1,33,796	57,098	1,14,147	1,344	—19,649
	No.		No.		No.	
Live stock	121,373	49,376	174,908	56,349	53,035	6,973
Rents, &c.	....	19,145	.....	18,607	.....	—538
Total ...	1,712,879	1,55,67,081	1,828,897	1,55,92,268	116,018	25,187

The noticeable increases under "General Merchandise" occurred in the traffic in cotton (manufactured) and oil-seeds, the increases in quantity carried and in the earnings being 5,046 tons and Rs. 1,25,307 and 151,257 tons and Rs. 13,63,955 respectively. The increase in manufactured cotton was due to development of traffic in Indian cotton goods. The increase in oil-seeds was due to larger exports to Europe. On the other hand, there were heavy decreases in grain and pulse and sugar, the decreases in quantity and amount being 68,593 tons and Rs. 11,41,237 and 6,323 tons and Rs. 1,96,021, respectively. The reduction in export of wheat to Europe and falling off in local traffic of sugar account for these decreases. There were increases and decreases in most of the remaining commodities classified under this heading, which are ascribed to ordinary fluctuation.

There was a decrease of Rs. 46,550 under "Military stores" due to less conveyance of Military stores.

The quantities of the principal commodities carried during 1893 and 1892 will be found in the following table:—

	1892.	1893.	Difference.
	Tons.	Tons.	Tons.
Coal and Coke carried for the public and foreign railways	8,542	7,607	—935
Cotton, raw...	50,555	47,400	—3,155
Cotton, manufactured	30,807	35,853	5,046
Drugs and Chemicals	2,095	2,199	104
Dyes and tans	9,321	11,213	1,892
Grain and Pulse	577,450	508,857	—68,593
Hides and Skins	5,782	5,728	—54
Horns	.....	56	56
Jute	14,776	19,903	5,127
Lac	.....	358	358
Leather, manufactured	745	1,052	307
Liquors	3,113	3,679	566
Metals	25,430	26,900	1,470
Oils	6,551	8,556	2,005
Oil-seeds	140,959	292,196	1,51,237
Opium	4,074	4,139	65
Paper and pasteboard	.....	715	715
Provisions	44,794	43,995	—799
Railway Plant and Rolling Stock carried for the public and foreign railways	10,476	22,250	11,774
Salt	216,757	209,728	—7,029
Saltpetre, &c.	11,864	10,020	—1,844
Silk, raw	223	297	74
Silk piece-goods			
Spices	9,158	12,843	3,685
Stone and lime	20,619	21,589	970
Sugar	142,304	135,981	—6,323
Tea	755	972	217
Timber	15,054	18,213	3,159
Tobacco	13,117	13,196	79
Wool, raw	5,662	6,538	876
Wool, manufactured			
All other articles of merchandise	118,603	109,034	—9,569
Total ...	1,489,586	1,581,067	91,481

Palanpur-Deesa Railway (Metre gauge).—This line was opened for traffic on 8th November 1893, the open mileage being 17·28, gross earnings to 31st December 1893, Rs. 4,436, working expenses Rs. 1,991, and net earnings Rs. 2,445. The working expenses of this line were charged at the same percentage of the gross earnings as prevailed on the Rajputana-Malwa Railway system generally.

Godhra-Rutlam Railway (Standard gauge).—A section of this line, Godhra to Limkhera, "25 miles in length" was opened for traffic on the 16th January 1893, the rest of the line being still under construction.

The gross earnings to 31st December 1893 amounted to Rs. 65,580, the working expenses to Rs. 26,040 and the net earnings to Rs. 36,540.

The working expenses of this line were charged on the basis of percentage of working expenses to earnings of the B. B. & C. I. Railway plus a charge equal to 5 per cent. on the earnings of the Godhra-Rutlam Railway for hire of rolling stock.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre gauge.*)

The following statement shows the general results :—

	1892.		1893.		Difference.	
	No.	Amount.	No.	Amount.	No.	Amount.
		Rs.		Rs.		Rs.
Open mileage	1,403·95	..	1,554·87	...	+ 150·92	...
Mean open mileage ...	1,384·95	...	1,512·29	...	+ 127·34	...
Gross earnings ...	...	59,41,076	...	78,20,038	...	+18,78,962
Working expenses ...	...	40,84,055	...	46,63,770	...	+ 5,79,715
Net earnings	...	18,57,021	...	31,56,268	...	+12,99,247
Passenger traffic ..	4,833,807	23,88,948	5,835,664	28,40,350	+1,001,857	+ 4,51,402
Goods traffic	646,293	31,67,504	924,351	45,76,730	+ 278,058	+14,09,226
Train miles	2,394,461	...	3,028,224	...	+ 633,763	...

There was an increase of 127·34 miles in the mean mileage worked during 1893 due to the transfer by the South Indian Railway of the working of the Guntakul-Dharmavaram Section of the Guntakul-Hindupur Railway to this Company from the 1st January 1893, and to further openings from Dharmavaram to Hindupur and from Hindupur to Mysore Frontier on 23rd April and 17th September 1893 respectively. The extension of the Bangalore-Hindupur Railway from Dodballapur to the Mysore Frontier on the 17th September 1893 added to the open mileage. The Bangalore-Dodballapur Section of the Bangalore-Hindupur Railway was opened to traffic on the 15th December 1892. This circumstance also affected the mean mileage worked during the two periods.

The gross earnings increased from Rs. 59,41,076 to Rs. 78,20,038 in 1893, or by Rs. 18,78,962. The working expenses were also heavier by Rs. 5,79,715. The net earnings, however, show an improvement of Rs. 12,99,247, having risen from Rs. 18,57,021 to Rs. 31,56,268.

The increase in the number of passengers carried and in the earnings therefrom amounted to Rs. 1,001,857 and Rs. 4,51,402, respectively. This improvement may be ascribed to the increase in the mean mileage worked, and to a general development of passenger traffic.

The tonnage of goods carried rose from 646,293 tons to 924,351 tons, and the earnings from Rs. 31,67,504 to Rs. 45,76,730.

The noticeable increases under "General Merchandise, &c.," occurred in the traffic in the following commodities :—

	Tons.	Rs.
Coal	8,390	54,087
Cotton, raw	45,646	3,34,341
Grain and Pulse	103,264	4,78,393
Jute	5,530	34,777
Metals	3,603	27,092
Oils	4,725	25,988
Oil-seeds	47,226	2,55,947
Spices	5,222	34,439
Sugar	9,151	58,663
Timber	7,924	30,847
Tobacco	2,348	21,275

and the more important decreases in the following articles :—

	Tons.	Rs.
Provisions—Increase ...	... 1,021 Decrease	16,860
Railway plant—Decrease ...	...22,221 „	85,767
Military Stores „ ...	... 1,467 „	31,219

The increase in coal is due to heavy bookings of Singareni coal from Kistna Canal Station to Dharmavaram for the South Indian Railway.

The increase in cotton, raw, is due to better crops in all districts in first half of 1893, as compared with 1892, and to the facilities afforded to trade by the special arrrangements for quick transit to Bombay *vid* Poona.

The increase in the grain traffic was chiefly in the business done in jowari and bajri, principally at stations on the Mysore State line and due to better harvests.

The increase in jute is due to traffic in gunny bags coincident with the improved traffic in grain and seeds.

The increase in metals is principally due to the importations *vid* Poona of machinery for the cotton and oil factories established at Hubli, Gadag and other places on this line.

The increase in oils is traceable to the better business done in kerosine oil.

The increases in oil-seeds was chiefly in traffic in castor oil-seeds arising from improved season in 1893.

The increases under spices, sugar and tobacco are also due to favourable crops in 1893.

The increase under timber is chiefly due to the demand for this commodity at Hubli, Gadag, Bellary, Belgaum and Bangalore Stations.

Railway Materials.—Increase of 13,901 tons and Rs. 25,357 arises from adjustment of the cost of ballasting the Guntakul-Hindupur line.

Revenue Stores.—Increase of 3,799 tons and Rs. 21,457 due to heavy bookings of wood fuel for the Locomotive Department to the various depôts.

Coal for Revenue.—Increase of 18,065 tons and Rs. 40,079 due to the large importations of Singareni coal *vid* Kistna Canal Station.

The decrease under Provisions is due to the falling off in the import of cocoanuts from the West India Portuguese Railway, and in the exports *vid* Poona, Hotgi and Bangalore.

The decrease in Railway plant is due to the completion of the construction of the Bangalore-Hindupur and East Coast Railways for which materials were trained previously.

The decrease in Military Stores is due to the heavy bookings in 1892 from Belgaum and Poona Stations, with which there is nothing to correspond in the year under review.

The principal fluctuations in the working expenses were increases of Rs. 1,48,751, Rs. 3,18,180, Rs. 76,715 and Rs. 38,890 under "Maintenance of Way, Works and Stations", "Locomotive Expenses", "Traffic Expenses" and "General Charges", respectively, and decreases of Rs. 8,614 and Rs. 8,317 under "Carriage and Wagon Expenses" and "Special and Miscellaneous Expenses", respectively. The increase under "Maintenance of Way, Works and Stations" was due chiefly to the working of the Bangalore-Guntakul Railway, to the heavier renewals of sleepers on various parts of the line, and to the special outlay in relaying six miles of sleepers between Belgaum and Sulebhavi on the West Deccan Line; also to the transfer from Capital of Rs. 40,869 on account of the cost of the works and buildings at the Ghorepuri temporary station on its being closed to traffic. The increase in the "Locomotive Expenses" was due chiefly to the increase of 633,763 train miles, to the renewal of 24 copper tube plates and 264 tyres, to much larger quantities of fuel carried over long distances for distribution to fuelling stations, and to the write off of a sum of Rs. 9,774 representing the cost of depreciation on account of duplicates of A Class engines belonging to the Mysore State Railway.

The increase under "Traffic Expenses" was chiefly due to the entertainment of additional staff to work the Bangalore-Guntakul Section, and to the supply of printed books, forms and tickets to stations on the same section and to the adjustment of arrears of joint station expenses of previous half-years.

The increase in "General Charges" was due principally to the working of the Guntakul-Bangalore Railway which necessitated the entertainment of addititional Telegraph and Police Establishment and to the special appointment

of Colonel Lindsay to act as Agent on Rs. 3,000 per mensem since October 1893, in addition to which the permanent Agent on furlough draws an allowance of Rs. 1,000.

The decrease under "Carriage and Wagon Expenses" was due to there having been no special heavy repairs to stock as in the previous year when several carriages and wagons, damaged at the accident on the Mysore line in 1891, were repaired and renewed; the decrease was, however, to some extent absorbed by an adjustment on account of fitting Jones' buffers and the renewal of head stocks of several wagons.

The decrease under "Special and Miscellaneous Expenses" was due to the heavy payment in 1892 on account of compensation to passengers for personal injuries sustained in an accident on the Mysore line.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre gauge.*)

The revenue expenditure for the year 1893 on an open mileage at close of the year of 333·65 miles was Rs. 56·22 per cent. of the gross earnings, yielding a net revenue of Rs. 8,88,708.

The gross traffic earnings for the year amounted to Rs. 20,29 929, and the expenditure to Rs. 11,41,221, leaving net earnings of Rs. 8,88,708, this sum being Rs. 4,50,831 more than the net earnings in 1892.

Gross earnings were made up as under:—

	Rs.
Coaching	... 10,18,599
Goods	... 9,57,818
Telegraph	... 19,599
Sundries	... 33,913

The coaching earnings show an increase of Rs. 2,07,009. The goods revenue shows an increase of Rs. 2,33,859 and the telegraph and sundries an increase Rs. 10,882.

Revenue expenditure amounted to Rs. 11,41,220 or 56·22 per cent. of the gross earnings against 72·25 per cent. in 1892.

The percentage on total earnings of the several heads of revenue expenditure, as compared with 1892, are given in the following table:—

	1892.	1893.
Maintenance	... 32·70	21·04
Locomotive expenses	... 14·69	14·15
Carriage and wagon expenses ...	... 2·81	2·52
Traffic expenses	... 9·86	8·92
General charges	... 10·28	8·07
Miscellaneous charges ...	... 1·91	1·52
	72·25	56·22

The net revenue Rs. 8,88,708 gives a percentage of dividend of 5·16 per cent. on the total capital outlay to end of 1893, Rs. 1,72,28,861. The shares of the different States in the net revenue and the percentages on their capital outlay are as follows:—

	Net Revenue.	Percentages.
	Rs.	
Bhavnagar share	5,76,215	... 8·17
Junagad share	38,786	... 1·07
Gondal-Porbandar share ...	2,74,105	... 4·17

Departmental Expenditure.

Maintenance.—The expenses under this in 1893 was Rs. 4,27,135 against Rs. 5,16,088, showing a decrease of Rs. 88,953.

Locomotive.—The Locomotive expenses amounted to Rs. 2,87,223 against Rs. 2,31,834 in 1892, giving an average cost per train-mile of annas eight (0-8-0) against 7·52 and per 1,000 gross ton-miles of Rs. 3·05 against 3·06 in 1892.

The consumption of coal during the year amounted to tons 5,891·69 against tons 4,982·91 in 1892. The average cost per ton amounts to Rs. 21·09 against Rs. 20·90 in 1892. The consumption and cost per train-mile was lbs. 22·63 and annas 3·41 against lbs. 22 50 and annas 3·38 in 1892. The coal premium paid during the year was Rs. 4,527 against Rs. 2,713 in 1892. The increase is due to more train-miles run in the year under report than in the previous year.

Carriage and Wagon Expenses.—The expenses under this amounted to Rs. 51,073 against Rs. 44,310 in the previous year; the vehicle miles run were 13,133,633 against 10,388,636 in 1892. The average cost per 1,000 vehicle miles run works out to Rs. 4·17 against Rs. 4·26 in 1892.

Traffic Expenses.—The total expenses amounted to Rs. 1,81,042 against Rs. 1,55,594 in 1892. The cost per train-mile and percentage on gross receipts are annas 4·96 and Rs. 8·92 respectively.

General Charges and Special and Miscellaneous Expenditure.—The percentage of the above on the gross earnings of the year compare as follows with the figures for 1892:—

	1892.	1893.
General charges	10·28	8·07
Special and miscellaneous expenditure ...	1·91	1·52

The expenditure reviewed in the foregoing paragraphs is summarized and compared with similar figures in 1892 in the following table:—

	1892.			1893.		
	Expenditure.	Percentage on Gross Receipts.	Cost per Train-mile.	Expenditure.	Percentage on gross Receipts.	Cost per Train-mile.
	Rs.	Rs.	Annas.	Rs.	Rs.	Annas.
Maintenance	5,16,088	32·70	16·80	4,27,134	21·04	11·84
Locomotive Expenses	2,31,834	14·69	7·52	2,87,222	14·15	8·00
Carriage and wagon expenses ...	44,310	2·81	1·44	51,073	2·52	1·44
Traffic expenses	1,55,594	9·86	4·96	1,81,042	8·92	4·96
General charges	1,62,233	10·28	5·28	1,63,791	8·07	4·48
Steam-boat service	...	...	...	...	...	...
Special and Miscellaneous	30,243	1·91	0·96	30,955	1·52	0·96
Total ...	11,40,312	72·25	36·96	11,41,221	56·22	31·68

Traffic Working.—Coaching.

Gross earnings amounted to Rs. 10,18,599 against Rs. 8,11,590 in 1892. An increase of Rs. 2,07,009 or 25·50 per cent.

The unit mileage of passenger traffic compares as follows with previous years:—

Class.	Unit Mileage.						
	1887.	1888.	1889.	1890.	1891.	1892.	1883.
1st Class	144,668	147,476	202,584	229,195	195,276	210,216	319,793
2nd Class	560,253	655,352	959,916	1,141,577	1,259,941	1,224,940	1,549,810
3rd Class	32,264,559	32,258,962	43,670,952	51,263,770	50,659,189	49,935,749	62,616,636
Total of all Classes ...	32,969,480	33,061,790	44,833,452	52,634,542	52,114,406	51,370,905	64,486,239

The total number of passengers carried was 1,592,144 against 1,344,175 in 1892, an increase of 247,969 or 18·44 per cent., which is explained below:—

The increases in number and receipt are in all classes due to a large number of special trains having been run owing to marriages in the family of His Highness the Maharaja of Bhavnagar, and special fairs held at Palitana, Girnar and Godhra, also to the opening of the Jetalsar-Rajkot Railway.

The number of season tickets sold was 154, realizing Rs. 556 against No. 205 and receipt Rs. 581 in the previous year.

The number of trains run in 1893 compares as follows with 1892 :—

	1892.	1893.
Mail	732	730
Mixed	3,752	2,700
Passenger, Special	30	70

The great variations between mixed trains run in 1892 and 1893 is due to the altered system of counting trains from Bhavnagar to branch line.

The following is the comparison of certain figures connected with coaching working :—

Coaching Traffic.

		1887.	1888.	1889.	1890.	1891.	1892.	1893.
Average Earnings per Train mile	Rs.	2·98	2·26	2·59	2·65	3·02	2·99	3·51
Average No. of Units in a Train—								
1st Class	Nos.	·83	·64	0·75	0·73	0·72	·77	1·10
2nd Class	„	3·23	2·87	3·54	3·65	4·67	4·51	5·35
Third Class	„	185·84	141·09	161·08	163·75	187·53	183·75	215·97
Total Passenger Units ...		189·90	144·60	165·37	168·13	192·92	189·03	222·42
Other Coaching Traffic ...	Tons.	1·03	·70	·70	·77	·67	·78	·89
Average No. of Vehicles in a Coaching Train—								
1st Class	Nos.	1·15	1·13	1·23	1·33	1·35	1·40	1·44
2nd Class	„	1·24	1·32	1·43	1·42	1·61	1·61	1·54
3rd Class	„	11·62	9·97	10·42	11·39	11·98	11·12	11·46
Others	„	1·24	·57	0·40	·49	·61	·66	·77
Brakes	„	2·62	2·50	2·51	2·65	2·79	2·81	2·59
Total...	„	17·87	15·49	15·99	17·28	18·34	17·60	17·80
Average Cost of hauling a Coaching Train ...	Rs.	1·58	1·19	1·36	1·46	1·88	1·99	1·76
Passenger Train Mileage per Mean Mile open ...	Nos.	899	1,153	989	939	809	814	869
Gross Passenger Earnings per Mean Mile open ...	Rs.	2,677	2,622	2,560	2,487	2,442	2,432	3,055

Goods Traffic.

The receipts amounted to Rs. 9,57,818 and in tons 226,226 (excluding railway material) against Rs. 7,23,959 and in tons 173,584 in the previous year, showing an increase of Rs. 2,33,859 or 32·30 per cent. The increase chiefly occurs in the following staples : Coal and coke, cotton raw, jute, metals, oil and oil-seeds, provisions, stone and lime. The only noticeable decrease was in grain and pulse Rs. 18,024, due to a large area of grain-land being used for cotton which is more profitable.

The following is the comparison of certain figures connected with goods working :—

		1887.	1888.	1889.	1890.	1891.	1892.	1893.
Average Weight of a Goods Train—								
Freight	Tons.	48·07	54·07	61·22	62 88	62·50	60·81	58·31
Dead Weight	„	109·26	112·88	111·93	116·06	114·02	114·24	119·04
Total		157·33	166·96	173·15	178·94	176·52	175·05	177·35
Average Load of a Goods Vehicle (including loaded and empty) ...	Tons.	1·98	2·16	2·47	2·45	2·48	2·45	2·27
Average Load of a Loaded Goods Vehicle	Tons.	2·87	3·17	3·59	3·76	3·58	3·48	3·24
Average Receipts per Goods Train-mile	Rs.	3·49	3·39	3·07	2·84	3·23	3·27	3·37
Average Cost of Hauling a Goods Train-mile	Rs.	1·90	1·70	1·87	1·92	2·36	2·52	2·07
Average Receipts per Ton-mile ...	Pies.	13.94	12·03	9·62	8·68	9·93	10·34	11·11
Average Cost of Hauling per Ton-mile	Pies.	7·57	6·05	5·86	5·87	7·26	7·97	6·82
Goods Train-mileage per Mean Mile open	Nos.	650	786	738	745	580	663	852
Gross Goods Earnings per Mean Mile open	Rs.	2,268	2,662	2,265	2,117	1,876	2,169	2,872

The receipts and tonnage of railway material carried for Construction purposes of home line compared as follows with 1892 :—

	Tons.	Rs.
1892	... 6,755	... 5,031
1893	... 3,914	... 2,655
Decrease...	... 2,841	... 2,376

The decrease was due to there having been little or no Capital work done during the year.

Jetalsar-Rajkot Railway.—As mentioned in the first chapter of this report the line was opened for public traffic on the 12th April 1893. It has five stations between Rajkot and Jetalsar, *viz.*, Rajkotpura, Ribda, Gondal, Virpur and Navagadh. The earnings from 12th April to end of year under report amounted to Rs. 1,01,392 as given below under Coaching and Goods :—

Coaching.

	Rs.
Gross earnings amounted to	... 81,440
Total number of passengers carried ...	...159,255

Goods.

Gross earnings amounted to	19,952
Tons of goods carried	8,476

Number of trains run was :—

Mixed	... 547
Passenger Special	... 23
	570

Through booking by Sea viâ Bhavnagar Bandar.—The Bombay Steam Navigation Company continued through booking arrangements which was in force from the 17th September 1892 to the 15th November 1893, on which latter date Messrs. Shepherd and Co. ceased through booking. The S.S. *Calder* was then hired by the Bhavnagar State from the Bombay and Persian Gulf Steam Navigation Company from 15th May to 17th July when booking by sea was stopped owing to the monsoon.

From the 1st December 1893 the S.S. *Vasna*, owned by the British India Steam Navigation Company, has been chartered. Service is still in operation and will continue to the end of the season about June or longer.

The through booking by sea has so far been worked at a loss to the Bhavnagar State who are solely responsible for the undertaking. The loss incurred in working has been due to Messrs. Shepherd and Company running in opposition to the State and reducing their rates to mere nominal charges.

MORVI RAILWAY—(2′ 6″ *gauge.*)

The mean mileage worked was the same as in the previous year, *viz.*, 94 miles.

The Revenue transactions show that whereas the gross receipts increased from Rs. 3,09,171 in 1892 to Rs. 3,22,818 in 1893, there was a decrease in the working expenses from Rs. 1,78,801 to Rs. 1,77,085, giving net earnings of Rs. 1,45,733 an increase over the preceding year of Rs. 15,363.

The number of passengers carried increased from 228,008 to 269,314, and the earnings from Rs. 1,94,990 to Rs. 2,17,169. This result may be ascribed to the general development of the traffic in passengers and to the opening of the Jetalsar-Rajkot Branch of the Bhavnagar-Gondal-Junagad-Porbandar Railway.

The tonnage of goods decreased from tons 24,210·90 to tons 24,198·26, and the earnings from Rs. 1,06,642 to Rs. 1,00,829. But the increase in passenger traffic more than compensated for the decrease in goods.

Decreases in goods occurred in grain, seeds and sugar, of Rs. 10,958, Rs. 2,446 and Rs. 1,745 respectively; and increases occurred in cotton, timber and other articles of merchandise of Rs. 1,552, Rs. 2,367, and Rs. 1,293 respectively.

The decreases noticed above may be ascribed to the traffic in grain, seeds and sugar from Bhavnagar to Rajkot and wheat from Rajkot to Bombry *viâ* Bhavnagar Bandar being diverted *viâ* the Jetalsar-Rajkot Line.

There was a small increase in outward traffic in cotton, and in inward in timber and other articles of merchandise.

The principal fluctuations in working expenses were a decrease of Rs. 6,907 under "Locomotive Expenses", and increases of Rs. 3,213 and Rs. 1,633 in "Traffic Expenses" and "General Charges," respectively.

The decrease in the "Locomotive Expenses" is due chiefly to the less consumption of coal, oil, waste, &c., per train mile, reduction in the wages of the running staff and better arrangement for supply of water.

The increase in the "Traffic Expenses" is mainly due to the adjustment of an old bill for ticket printing carried out during the year and to the repair and supply of new furniture to stations.

The increase in "General Charges" is chiefly due to the payment for the half-year ending 31st March 1894 made in advance to the Agency Police Department under the revised Police arrangements.

Chapter VIII—Rates and Fares.

(For the calendar year 1893.)

G. I. P. Railway System—(*Standard gauge.*)

The most important change made during the year was in the special rate for Singharini coal, which was enhanced from 0·166 to 0·170 pies per maund per mile.

The following were the principal alterations in the year 1893 on the G. I. P. Railway, including the leased lines :—

Goods.	Prior to 1893. Per ton of 27 Maunds per mile, pies.	Alteration in 1893. Per ton of 27 Maunds per mile, pies.
Turmeric, when booked between Bombay and Cawnpur and *viâ*, and *viâ* Itarsi	14·06	10·43
Agra Fort and *viâ* Itarsi	14·16	10·43
Agra Cantonment and *viâ* Itarsi	14·19	10·45
Viâ Agra Junction do.	14·16	10·40
Fire-bricks, tiles and clay in full wagon-load from Warora to stations on the G. I. P. and *viâ* G. I. P.	7·05	5·13
Grain and common seeds to Poona *viâ* Itarsi from Agra stations	7·24	5·13
Cotton, full-pressed, when booked from Broach and Palej *viâ* Dadar to Jalgaon, Badnera, Pulgaon, Hinganghat, Nagpur and Kulburga	Varying from 19·75 to 12·61.	Varying from 15·97 to 12·61.
Wheat, grain and common seeds from stations on Sambalpur and Kutni branch of the Bengal-Nagpur Railway to Bombay	5·92	3·375
Moha seed and mowra flowers from stations between Khandwa and Jubbulpore and *viâ* and stations between Nagpur and Wardha and *viâ* to Hadabsar.	Varying from 9·26 to 7·18.	Varying from 7·73 to 6·41.
Red earth in consignments of not less than 160 maunds from Bombay to Agra Fort *viâ* Itarsi ...	8·44	5·54
viâ Agra Junction *viâ* Itârsi		5·52
Cawnpur and *viâ* Itârsi		6·24
Leather, common or rough, in bales	13·93	9·68
Leather, manufactured goods in boxes or bales from Cawnpur to Madras *viâ* Itarsi and Raichur ...	20·00	13·93

Goods—continued.	Prior to 1893. Per ton of 27 Maunds per mile, pies.	Alteration in 1893. Per ton of 27 Maunds per mile, pies.
Grain and seeds from Agra Station to Madras *vid* Itarsi and Raichur in wagon-load of 270 maunds at owner's risk	6·70	·3·58
Reduced through class rates between Bombay and Kirkee and stations on the direct route between Raichur and Madras and Kutpadi and Renigunta .	.....	To agree with the lowest rates *vid* Southern Mahratta Railway.
Kerosine-oil from Bombay to certain stations on the Southern Mahratta Railway near to Poona and Hotgi—		
Poona	Varying from 6·75 to 6·65.	Varying from 9·21 to 8·81
Hotgi	6·37 to 6·25.	9·47 to 8·09
Salt when booked from Bombay, Dadar, *vid* Dadar, Kurla and Thana to stations between Sambulpur and Manharpur on the Bengal-Nagpur Railway ...	6·79	7·34 to 5·56
Ghee in barrels, tubs, iron drums and tins in secure outer cases at owner's risk when booked from Etawah *vid* Agra Junction and from Agra Fort to Bombay *vid* Itarsi—		
In consignments of under 81 maunds... ...	9·73	9·91 to 9·78
Do. of 81 maunds and over ...		
Machinery at owner's risk from Bombay to Agra stations and *vid* Cawnpur and *vid*, chargeable on the carrying capacity of wagon used	9·72	4·56
Machinery at owner's risk in minimum wagon-loads of not less than 100 maunds from Bombay to Cawnpur and *vid* Cawnpur *vid* Itarsi ...	9·78	7·53
Turmeric from stations between Bezwada and Nawandgi on the N.-G. State Railway to Bombay, *vid* Wadi	14·58	Varying from 14·85 to 8·51.
Piece-goods and Twist press packed and iron bound or in cases when booked between Bombay and Guntakul *vid* Raichur	20·48	15·79
Coal carried on Revenue Account from 1st July 1893.	4·00	2·99
Wheat, grain and common seeds from stations between Bhandai and Datia inclusive *vid* Itarsi Bombay	Varying from 5·87 to 4·42.	Varying from 5·75 to 4·19

B. B. & C. I. Railway System.

(Including all lines worked by the B. B. & C. I. Railway Company.)

Coaching Rates and Fares.—With the exceptions noted below, no change was made in the passenger fares and coaching rates during the year 1893 :—

(*a*) The Great Indian Peninsula Railway having introduced the following rules, this Company also adopted the same with effect from the 1st January 1893 :—

"Male servants in attendance upon invalid Military passengers travelling first or second class under Government warrant will be allowed to travel in first class carriage at second class fare, and in second class carriage at intermediate class fare, when it is certified that such attendance is necessary during the journey, the certificate being signed by a Military or Civil Surgeon."

(*b*) The following rates for Treasure, including specie, &c., the property of Government, were adopted with effect from the 1st April 1893 :—

Up to 27 maunds	...	$1\frac{2}{3}$ pies per maund per mile.
Above 27 and up to 81 maunds	...	$1\frac{1}{2}$ " "
Above 81 and up to 270 maunds	...	1 " "
Over 270 maunds	...	$\frac{2}{3}$ " "

Copper coins by passenger trains in quantities of 5 maunds and under, $1\frac{1}{3}$ pies per maund per mile; in quantities of over 5 maunds, $\frac{2}{3}$ pies per maund per mile, subject to a minimum charge as for 10 maunds.

Goods rates.—The principal changes in goods rates made during the year are as given below :—

(*a*) To encourage traffic the following rule was introduced with effect from the 1st January 1893 :—

"Timber when booked from *viâ* Cawnpore or from *viâ* Hathras Road to stations on the B. B. & C. I. Railway Company's system should be charged at the classified rates on actual weight ; but if the actual weight be less, the minimum charge should be 81 maunds per truck as used on the despatching Railway, and not meter-gauge truck used."

(*b*) With effect from the 1st January 1893, the additional short distance charge of 3 pies per maund levied on goods carried 75 miles or less in through booking with the North-Western Railway was abolished, the North-Western Railway having withdrawn their similar charge in through booking with the B. B. & C. I. Railway Company's system with effect from the same date.

(*c*) The rate for piece-goods, yarn and cotton twist, pressed and bound, or in boxes, from and *viâ* Ferozepore Cantonment to any station in Bombay, was reduced from Rs. 2-15-8 to Rs. 2-14-5 per maund, so as to equalize with the rate from Umritsar to Bombay *viâ* Delhi, with effect from the 1st October 1893.

(*d*) Consequent upon alterations on neighbouring Railways, the following changes in the rates and conditions for the undermentioned articles were made with effect from the dates noted against each :—

	From.	To.	Rate per Maund.	Date having effect.
			Rs. a. p.	
(1) Machinery at owner's risk subject to charge on the carrying capacity of trucks used.	Bombay ...	Agra Fort and *viâ* Agra ...	0 11 10	From 1st May 1893.
		Viâ Agra Cantonment ...	0 11 10	
		Delhi...	0 13 5	
		Viâ Delhi for Umballa Cantonment and *viâ* Umballa Cantonment	0 12 10	
		Viâ Delhi for other stations...	0 13 5	
		Cawnpore and *viâ* Cawnpore .	0 11 0	
		Ferozepore Cantonement and *viâ* Ferozepore Cantonment.	1 0 3	
		Bhatinda and *viâ* Bhatinda ...	0 15 6	
		Hathras Road and *viâ* Hathras Road—		
		(1) For traffic to E. I. Railway stations Aligarh and Khurja, and to O. & R. Railway stations from Moradabad to Najibabad (both inclusive) ...	0 12 1	
		(2) Por traffic to E. I. Railway stations, Hathras Junction, Pali, Kulwa, Somna and Damar and to O. & R. Railway stations from Hardnaganj to Kandarki, including Chandansi and stations from Asafpur to Bareilly (both inclusive) and *viâ* Bareilly.	0 13 1	
		(3) For traffic to stations other than above ...	0 12 1	
(2) Oil, vegetable, at owner's risk securely packed in kerosine oil tins, with outer cases or in drums or casks, in full wagon loads.	Ferozepore Cantonment and *viâ*.	Bombay	1 2 0	1st June 1893.

(3) *Dynamite.*—The carriage by rail of this article was arranged for from 15th September to 31st March instead of from 15th October to 31st March in each year.

(4) *Dynamite and gelatine.*—The minimum charge for these articles was raised from 20 maunds to 27 maunds, with effect from the 1st June 1893.

The above changes also apply to the Rajputana-Malwa Railway (metre gauge).

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre gauge*).

Coaching.—There were no important changes in the coaching tariff during the year 1893.

Platform tickets, which were in force at some of the principal stations on the Southern Mahratta and Mysore State Railways, were discontinued from the 22nd November 1893.

Goods.—There were numerous small changes in the goods tariff during the year 1893.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre gauge.*)

No important changes were made during the year. A few changes in the classification of goods were made in order to assimilate it with the classification prevalent on the B. B. & C. I. Railway.

MORVI RAILWAY—(2′ 6″ *gauge*).

On 1st January 1893 an agency was established for delivery of parcels to addressees at their houses both in Rajkot City and the Civil Station.

From 1st March 1893 rates of ginger, raw, butter, cheese, curds, eggs, green jowari, lucern, grass and sugarcane were reduced by half when booked as parcels.

From 1st May 1893 the separate rate for the Morvi Railway in parcels traffic in local and through-booking was abolished and the system of charging on total mileage accepted.

From 1st May 1893 the transhipment charge of four pies per maund on all through-goods rates *viâ* Wadhwan Junction was reduced to three pies per maund.

From 1st June 1893 rates were reduced to ·29 pies per maund for cadjans, charcoal, chunam, grass, green, gunny bags, or cloth, jowli, iron, namely pig-ore and scrap, lime, mowra flower, mowra, tobacco, native, raw; to ·25 pie per maund for jagri, molasses in baskets, casks, gunny bags, or tins (at Railway risk) jagri and molasses in coopas or crocks or in leather bags (at owner's risk), gram and common seeds; and to ·36 pies for timbers, rafters and bullies.

From 1st August 1893 treasure not exceeding one maund accompanying passengers has been charged at luggage rates, no free allowance being given, but when it weighs only 15 seers, or under, no charge is made on it.

From 20th August 1893 the terminal charge on the Morvi Railway on all goods booked *viâ* Rajkot Junction to stations on the Bhavnagar-Gondal-Junagad-Porbandar Railway reached *viâ* Jetalsar Junction was reduced to 4½ pies.

Chapter IX—Miscellaneous.

Persons employed.

(For the official year 1893-94.*)*

During the year the officers present for duty were:—

Government Supervision and Control.

Secretary to the Government of Bombay, Railway Department, and Consulting Engineer for Railways—Lieut.-Colonel F. Firebrace, R. E. (on leave from 16th August 1893 to 31st October 1893).

Mr. F. J. E. Spring, L. C. E. (joined 8th August 1893), acting, from 16th August to 31st October 1893.

Under Secretary to Government, Railway Department, and Deputy Consulting Engineer for Railways—Major H. O. Selby, R. E. (on leave

from 21st April 1893 to 31st December 1893).

Mr. J. E. Dallas, acting, from 21st April 1893 to 31st August 1893.

R. C. Dyson, acting, from 1st September 1893 to 31st December 1893.

Deputy Consulting Engineers for Railways:—

Mr. E. W. Arundell, B. A., F. C. H., up to 12th June 1893.

Mr. C. H. C. Bickerton, joined 25th August 1893.

Mr. J. Willcocks, joined 3rd June 1893; on leave from 28th March 1894.

Mr. J. E. Dallas (on leave from 1st September 1893 to 31st October 1893 and again from 20th March 1894).

Mr. R. C. Dyson, F. C. H.

Examiner of Guaranteed Railway Accounts, Bombay—Mr. F. P. Quinlan (on leave from 2nd October to 25th November 1893).

Mr. G. W. Sweet, acting, from 2nd October to 25th November 1893.

Deputy Examiner of Guaranteed Railway Accounts, Bombay:—
Mr. A. Conley (acting at Dhárwár from 7th May to 6th June 1893).

Examiner of Railway Accounts, Ajmere—Mr. G. W. Sweet (transferred with Ajmere office to Bombay on 25th June 1893).

Examiner of Railway Accounts, Dhárwár—Major E. A. Waller, R. E. (on leave from 7th May to 6th June 1893).

Mr. A. Conley, acting, from 7th May to 6th June 1893.

Heads of Departments of each Railway.

G. I. P. Railway Company.

Bombay.

Agent—Mr. G. A. Barnett, C.I.E. (returned from leave 16th April 1893).

Mr. H. Conder, acting, up to 16th April 1893.

Auditor—Mr. S. Gore Browne.

Chief Engineer—Mr. H. Wenden.

General Traffic Manager—Mr. H. Conder.

Mr. E. W. Keily, acting, up to 16th April 1893.

Locomotive Superintendent—Mr. R. L. Trevithick.

General Storekeeper—Mr. A. King.

Telegraph Superintendent—Mr. G. R. Webb.

Superintending Surgeon—Dr. W. Kay.

Superintendent of Police (Poona)—Mr. H. Scannell, up to 18th April and again from 4th December 1893.

Mr. A. R. Maidment, acting, from 19th April to 3rd December 1893.

B. B. and C. I. Railway Company.

Bombay.

Agent—Lieutenant-Colonel W. S. S. Bisset, C. I. E., R. E. (on leave from 8th April to 14th October 1893; left the line on the 30th December 1893).

Mr. I. O'Callaghan, acting, from 8th April to 13th October 1893 and again from 31st December 1893.

Chief Auditor and Accountant—Mr. J. O'Connell.

General Traffic Manager—Mr. I. O'Callaghan.

Mr. C. A. R. Crommelin, acting, from 8th April to 19th August 1893, and again from 31st December 1893.

Mr. J. Conder, acting, from 19th August to 14th October 1893.

Chief Engineer—Mr. H. J. B. Hargrave, on deputation to England from 8th October 1892, returned 26th June 1893.

Mr. J. L. Hogan, acting, from 1st April 1893 to 20th May 1893.

Mr. C. V. MacIvor, acting, from 21st May 1893 to 26th June 1893.

Traffic Manager—Mr. C. A. R. Crommelin (on leave from 19th August to 19th November 1893).

Mr. D. ff. Powell, acting, from 8th April to 19th November 1893 and again from 31st December 1893.

Locomotive and Carriage Superintendent—Mr. E. B. Carroll, on leave from 20th October to 3rd November 1893.

Mr. E. S. Luard, acting, from 20th October to 3rd November 1893.

Chief Storekeeper—Mr. S. A. Duigan (on leave from 31st May to 20th August 1893).

Mr. G. R. Spencer, acting, from 31st May to 20th August 1893.

Telegraph Superintendent (Surat)—Mr. J. Franklin (on 6 months' leave from 1st July 1893).

Chief Medical Officer—Dr. A. H. Deane.

Superintendent of Police—Mr. C. A. B. Beatty.

Ajmere.

Engineer-in-Chief—Mr. B. W. Blood, retired from 19th May 1893.

Mr. C. M. Pratt, in charge, from 19th May to 23rd July 1893.

Mr. W. Harvey, from 24th June 1893.

Traffic Superintendent—Mr. J. Conder (on leave from 7th April to 4th July 1893).

Mr. W. C. Bagnell, acting, from 7th April to 3rd July 1893.

Locomotive Superintendent—Mr. F. N. Gütersloh.

Carriage and Wagon Superintendent—Mr. W. R. S. Jones (on leave from 9th June to 8th December 1893, retired from 9th December 1893).

Mr. J. J. Adler, acting, from 9th June to 8th December 1893; appointed substantively from 9th December 1893.

Auditor—Mr. J. W. Fordham (on leave from 17th June 1893 to 17th February 1894; retired).

Mr. R. A. English, acting, up to 16th February 1894; appointed substantively from 17th February 1894; on leave from 24th March 1894.

Deputy Storekeeper—Mr. G. R. Spencer (acting as Chief Storekeeper in Bombay, from 31st May to 31st August 1893).

Mr. R. F. Goode, acting, from 31st May to 31st August 1893.

Medical Officer (Bandikui)—Dr. W. Crofts (on leave from 30th August to 29th September 1893).

Assistant Inspector-General of Police—Mr. R. E. Acklom, returned from leave on 3rd August 1893.

Mr. J. R. Tregear, acting, up to 2nd August 1893.

SOUTHERN MAHRATTA RAILWAY COMPANY.

Dhárwár.

Agent—Mr. J. Campbell (on leave from 12th September 1893).

Mr. P. Scott, acting, from 12th September to 30th October 1893.

Colonel J. G. Lindsay, R. E., acting, from 31st October 1893.

Chief Engineer—Mr. E. H. Hallum, retired from 20th May 1893.
Mr. Peter Scott, from 21st May 1893.
Auditor—Mr. J. Partridge.
Traffic Manager—Mr. W. M. Steuart, officiating up to 1st October 1893.
Mr. A. Muirhead, from 2nd October 1893.
Locomotive Superintendent (Hubli)—Mr. C. P. Whitcombe (on 3 months' leave from 19th February 1894).
Mr. G. W. Lindsley, acting, from 19th February 1894.
Storekeeper (Hubli)—Mr. H. Weir.
Medical Officer (Hubli)—Dr. E. S. Chenai.
Superintendent of Police—Mr. H. J. Duggan.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY.

Ghadechi.

Manager and Engineer-in-Chief—Mr. W. H. White.
Examiner of Accounts—Mr. E. A. Lee (on leave from 13th September 1893).
Mr. W. C. Hickie from 13th September 1893.
Traffic Superintendent—Mr. C. Carroll.
Locomotive and Carriage Superintendent (also in charge of Stores)—Mr. R. Wylie.
Medical Officer—Dr. N. F. Bunshaw.
Superintendent of Police—Mr. Dossabhoy Nassarvanji, up to October 1893.

MORVI RAILWAY.

Morvi.

Manager and Executive Engineer—Mr. W. H. White.
Resident Engineer and Traffic Superintendent—Mr. C. P. White (on 5 months' leave up to November 1893).
Locomotive and Carriage Superintendent—Mr. M. B. Burke.
Auditor and Accountant—Mr. Hormasji Dinshaw.

Schools.

(For the calendar year 1893.)

The following tables give information in connection with the attendance of the various schools and the receipt and expenses for the calendar year 1893 :—

G. I. P. RAILWAY.

Local and District Schools.

Name and Location of School.	Attendance.				Annual Contributions.			Remarks.
	Children.		Apprentices and Workmen.					
	Number on the Rolls.	Average daily Attendance.	Number on the Rolls.	Average daily Attendance.	Railway Grant.	Average School-fees.	Total.	
					Rs.			
Church School, Jubbulpore	9	...	...	...	600	...	...	
Church School, Harda	46	...	...	...	600	...	...	
Bishop's School, Nagpur...	15	...	...	...	250	...	...	
St. Francis de Sales R. C. School, Nagpur ...	82	...	...	...	378	...	...	

Railway Schools.

Name and Location of School.	Attendance. Children. Number on the Rolls.	Attendance. Children. Average daily Attendance.	Attendance. Apprentices and Workmen. Number on the Rolls.	Attendance. Apprentices and Workmen. Average daily Attendance.	Annual Contributions. Government Grant.	Annual Contributions. Railway Grant.	Annual Contributions. Average School-fees.	Annual Contributions. Total.	Annual Expenditure.	Average monthly Fees.	Remarks.
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Railway School, Parel ...	21	19	...	...	...	673 15 7	107 0 0	780 5 7	673 5 7	9 13 0	
,, Igatpuri...	46	38	...	...	1,153 0 0	3,272 11 5	480 11 6	4,906 6 11	4,003 11 5	48 1 2	
,, Bhusaval..	56	41	...	...	410 0 0	3,008 3 7	445 12 0	3,863 15 7	3,307 3 7	40 8 4	
Joint Railway School, Khandwa	27	20	...	...	360 0 0	1,865 0 0	1,227 14 11*	3,452 14 11	1,865 0 0	47 3 2	
Railway School, Lonavla.	69	63	...	...	874 0 0	2,826 6 8	765 11 6	4,466 2 2	3,336 6 8	69 9 9	
,, Sholápur..	48	35	...	...	332 0 0	1,569 10 8	282 11 9	2,184 6 5	1,824 10 8	28 4 4	
,, Shahabad.	27	20	...	...	285 15 0	861 8 1	210 14 0	1,308 5 1	1,029 8 1	21 1 5	

	Rs. a. p.
*The fees paid by G. I. P., R. M. and non-Railway Residents	566 6 6
Rajputana-Malwa Railway's proportion of expenses for the year 1893	661 8 5
Total ...	1,227 14 11

B. B. & C. I. Railway.

Local and District Schools.

Name and Location of School.	Attendance. Children. Number on the Rolls.	Attendance. Children. Average daily Attendance.	Attendance. Apprentices and Workmen. Number on the Rolls.	Attendance. Apprentices and Workmen. Average daily Attendance.	Annual Contributions. Railway Grants including Boarding.	Annual Contributions. School-fees including Boarding.	Annual Contributions. Total.	Remarks.
					Rs.	Rs.	Rs.	
Cathedral Boys' High School, Fort	4	3·50	...	...	162	287	449	
Cathedral Girls' School, Fort	2	2·00	...	...	174	390	564	
St. Joseph's Convent School, Bandra	5	4·50	...	...	503	503	1,006	
Convent Girls' School, Lower Mahim	5	4·50	...	...	87	87	174	
Convent Boarding School, Parel	5	4·67	...	...	289	289	578	
A. D'Silva's Anglo-Portuguese School, Dadar.	1	0·50	...	...	6	6	12	For 6 months.
Bombay Education Society's Schools, Byculla.	12	9·42	...	...	957	1,442	2,399	
Taylor High School, Poona	5	5·00	...	...	458	924	1,382	
Elphinstone Middle School, Esplanade ...	1	1·00	...	...	16	17	33	
St. Mary's College, Mazgaon	3	2·92	...	...	386	539	925	
Lawrence M. Asylum, Muree	1	0·96	...	...	86	106	192	
Ripon High School, Bhobi Talao	1	0·50	...	...	15	15	30	For 6 months.
Victoria Jubilee Technical Institute, Byculla...	1	1·00	...	...	18	23	41	
Total ...	...	...	...	...	3,157	4,628	7,785	

Railway Schools.

Name and Location of School.	Attendance. Children. Number on the Rolls.	Attendance. Children. Average daily Attendance.	Attendance. Apprentices. Number on the Rolls.	Attendance. Apprentices. Average daily Attendance.	Annual Contributions. Government Grant.	Annual Contributions. Railway Grant.	Annual Contributions. School-fees.	Annual Contributions. Total.	Annual Expenditure.	Remarks.
					Rs.	Rs.	Rs.	Rs.	Rs.	
Railway School, Parel ...	41·18	32·55	...	...	879	1,616	1,412	3,907	3,797	
Railway School, Bulsar ...	15·18	12·97	...	...	...	285	177	462	312	
Railway School, Ahmedabad.	56·45	56·00	...	...	582	1,200	688	2,470	2,515*	*Excess expenditure was met from fees from outsiders.

RAJPUTANA-MALWA RAILWAY.

Local and District Schools.

Name and Location of Schools.	Attendance.				Annual Contributions.			Remarks.
	Children.		Apprentices and Workmen.					
	Number on the Rolls.	Average daily Attendance	Number on the Rolls.	Average daily Attendance.	Railway Grant.	School-fees.	Total.	
					Rs.	Rs.		
Deccani School, Ajmere	13·54	13·50	...	...	115	115	230	
Bengali School, Ajmere	10·41	8·44	...	...	128	128	256	
Parsi School, Ajmere	10·08	8·32	...	...	420	126	546	
Anglo-Vernacular School, Abu Road ...	107·74	82·20	...	...	630	482	1,112	
Edalji Pestonji School, Mhow	60·80	50·79	...	...	425	425	850	
Anglo-Vernacular School, Bandikui ...	75·72	75·58	...	...	480	128	608	
Dayanand Ashram Anglo-Vadic School, Ajmere	88·41	88·11	...	...	600*	342	942	*Out of Fine Fund.

Railway Schools.

Name and Location of School.	Attendance.				Annual Contributions.				Annual Expenditure.	Remarks
	Children.		Apprentices.							
	Number on the Rolls.	Average daily attendance.	Number on the Rolls.	Average daily Attendance.	Government Grant.	Railway Grant.	School-fees.	Total.		
					Rs.	Rs.	Rs.	Rs.	Rs.	
Railway School, Mount Abu ...	54·9	54·9	...	...	...	14,577	6,043	20,620	21,150	The excess of expenditure over receipts was met from fees recovered from children of non-Railway employés.
Do. Abu Road ...	18·25	18·12	...	...	...	407	448	855	855	
Do. Ajmere... ...	91·41	91·41	...	...	1,200	600	1,795	3,595	3,580	
Railway Night School, Ajmere...	...	...	39	35	...	906	...	906	935	
Railway School, Neemuch ...	22·5	22·21	...	...	359	495	522	1,376	1,354	Excess met from balance in hand.
Do. Mhow	2·50	2·45	...	...	300	310	87	697	729	Do. do.
Joint Railway School, Khandwa.	27·36	18·23	...	...	...	662	180	842	842	Do. do.
Railway School, Bandikui ...	50·81	50·80	...	...	1,200	...	1,207	2,407	2,320	
Do. Sirsa	23·09	22	...	...	414	519	519	1,452	1,452	
Do. Kasganj ...	6·7	6·7	1	1	...	200	146	356	311	Opened 15th March 1893.

SOUTHERN MAHRATTA RAILWAY.

Railway Schools.

Name and Location of School.	Attendance.				Annual Contributions.				Annual Expenditure.	Remarks.
	Children.		Apprentices or Workmen.							
	Number on the Rolls.	Average daily Attendance.	Number on the Rolls.	Average daily Attendance.	Government Grant.	Railway Grant.	Average School-fees.	Total.		
Southern Mahratta Railway.					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Railway School, Hubli	33	24	...	...	269 15 0	600 0 0	568 14 0*	1,438 13 0	1,644 9 5*	This includes Interest on deposit in Postal Savings Bank— Rs. 40-9-6
Mysore State Railway.										Refund of balance of estimate for work done in Locomotive Workshops— Rs. 1-6-6
Railway School, Bangalore... ...	20	12	...	...	.....	60 0 0	120 0 0	180 0 0	.....	Rs. 42-0-0

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY.

Railway Schools.

Name and Location of Schools.	Attendance.				Annual Contributions.				Annual Expenditure.	Remarks.
	Children.		Apprentices and Workmen.							
	Number on the Rolls.	Average daily Attendance.	Number on the Rolls.	Average daily Attendance.	Government Grant.	Railway Grant.	Average School-fees.	Total.		
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Ghadechi	5 in Decr. 1893.	6·43	...	...	115 0 0	600 0 0	243 10 6	958 10 6	1,039 1 8	
Jetalsar	27 in Decr. 1893.	21·39	...	...	100 0 0	600 0 0	490 6 6	1,190 6 6	1,079 8 1	

Volunteers.

(For the official year 1893-94.)

The following statement shows the enrolled strength and the number of efficients in each Railway Volunteer Corps on the 31st March 1894:—

Corps.	Enrolled Strength.	Efficients.				Non-efficients.	Sergeant Instructors, 1st and 2nd class.	Drill Instructors.	Head-quarters.	Remarks.
		Officers.	Non-Commissioned Officers.	Volunteers.	Total.					
G. I. P. Railway Volunteer Rifle Corps	1,109	32	194	881	1,107	2	10	2	Bombay.	
B. B. & C. I. Railway Volunteer Rifle Corps, 1st Battalion ...	454	19	64	319	402	52	5	1	Do.	
Do. do. Reserve...	23	2	2	18	22	1	.....	...	Do.	
F. Company, 1st Battalion, (B.-G.-J.-P. Railway)... ...	66	5	5	50	60	6	1	...	Ghadechi.	
Morvi Railway	8	...	1	7	8	...	1	...	Do.	The seven Volunteers belong to F. Company, the one N. C. Officer to E. Company.
Second Battalion	1,018	35	145	801	981	37	10	...	Ajmere.	
Southern-Mahratta Railway Volunteer Rifle Corps	546	12	42	477	531	15	5	...	Hubli.	

Fuel Consumption.

(For the calendar year 1893.)

The following statement gives particulars of the consumption and cost of fuel during the year 1893:—

Description.	Total consumption.	Percentage on total Consumption.	Average cost per ton.	Consumption per train mile.	Cost per train mile.
	Tons.	Per cent.	Rs.	Lbs.	Annas.
G. I. P. Railway—					
English coal	75,321·25	39·51			
Warora ,, ...	36,499·25	19·15			
Umaria ,, ...	19,933·75	10·46			
Mohpani ,, ...	6,776·25	3·55			
Singareni coal	32,463·50	17·03			
Do. unscreened coal	2,786·50	1·46			
Bengal ... Damuda coal	664·75	0·35	10·02	43·16	3·70
Bengal ... Deshergur coal	945·25	0·50			
Bengal ... Sanctoria ,, ...	7,823·00	4·10			
Bengal ... Raniganj ,, ...	5,927·00	3·11			
Bengal ... Sitarampur ,, ...	334·50	0·18			
Bengal ... Barakur ,, ...	271·75	0·14			
Japanese coal	84·75	0·04			
Wood 2241·95 tons in terms of coal	807·25	0·42			
Total ...	190,638·75	100·00			
B. B. & C. I. Railway—					
English coal	44,917·04	97·64			
Bengal ,, ...	672·54	1·46	13·59	45·76	4·01
Wood in terms of coal	412·54	0·90			
Total ...	46,002·12	100·00			
R. M. Railway—					
English coal	35,537·62	40·63			
Bengal ,, ...	51,429·23	58·79	18·20	30·70	3·82
Wood in terms of coal	499·54	0·58			
Total ...	87,466·39	100·00			
S. M. Railway—					
English coal	136·30	0·14			
Singareni ,, ...	18,398·13	19·27	5·84	31·28	2·95
Wood in terms of coal	76,962·07	80·59			
Total ...	95,496·50	100·00			
B.-G.-J.-P. Railway—					
English coal	5,891·69	100·00	21·09	24·43	3·41
Morvi Railway—					
English coal	1,145·00	100·00	24·55	18·04	2·85

Railway Police.

(*For the calendar year 1893.*)

G. I. P. Railway System within the Bombay Presidency.

Mr. H. Scannel was in charge of the G. I. P. Railway Police from 1st January to 18th April and again from 4th December to the end of the year, and Mr. A. R. Maidment, in addition to his own duties of Personal Assistant to the Inspector-General of Police in the interval, *viz.*, from 19th April to 3rd December 1893.

Of real crime during the year under report compared with the years 1892 and 1891, the number of cases was 272 against 343 and 368, respectively; the decrease is reported to be entirely due to the decrease in thefts, principally in the Bombay Island and the Nandgaon District, which show respectively decreases of 27 and 23 cases. Of serious crimes there were two cases of murder against none the year before, and one of these remained pending. There was also one case of attempted murder by poison which, however, remained undetected. There were 2 cases of dacoity and 5 of robbery against none in the previous year. House-breaking cases have decreased from 11 to 6 and those of receiving stolen property from 8 to 6.

The total amount of property stolen during the year under review was Rs. 21,076 against Rs. 18,862 in 1892, but recoveries showed an improvement of 16 per cent.

The number of non-cognizable cases greatly decreased in the year under report, being 28 against 56 in the previous year.

The strength of the force was increased by one officer and 18 men sanctioned for Poona Junction Station, making the total strength 606. The length of line supervised, 772 miles, and the number of stations, 123, remained unchanged; so also the number of Police stations and out-posts, *viz.*, 8 and 81, respectively. The total cost of the force during the year was Rs. 1,29,212, as compared with Rs. 1,35,599 in 1892.

B. B. & C. I. Railway System.

Mr. Beatty was the Superintendent in charge throughout the year.

There were 292 real cases as compared with 354 in 1892 and 245 in 1891. The number of theft cases decreased from 122 to 105 and those of receiving stolen property from 13 to 11. Of serious crimes there was only one case of murder, which was committed on the line near Nadiad, but in which a conviction was not obtained. There were no cases of robbery or dacoity. There were 4 cases of house-breaking against 8 in 1892, all of which, however, remained undetected.

The value of property stolen during the year was set down at Rs. 8,588, and of such property recovered at Rs. 5,013 as compared with Rs. 6,501 and Rs. 3,278 in 1892.

The total number of non-cognizable offences reported during the year within Railway limits was 67 against 60 in the previous year.

The force was during the year increased by 1 officer and 14 men for duty on the open portion of the Godhra-Rutlam Railway, and the new luggage office at Ahmedabad Station which brings the total permanent strength up to 484. The line was increased by 25 miles and 4 stations of the Godhra-Rutlam extension and 2 stations, added on the main line, the total at the end of the year being 599 miles of line with 104 stations. The total cost of the Police was Rs. 88,909 as compared with Rs. 86,553 in the previous year.

Rajputana-Malwa Railway System.

Mr. Tregear was in charge of the office of the Assistant Inspector-General, Rajputana-Malwa Railway Police, from 1st January to 2nd August 1893, when

Mr. Acklom resumed charge on return from furlough and retained it up to the end of the year.

During the year there was a decrease in the number of real cognizable cases, the figure being 848 as compared with 903 in the preceding year. The decrease is mainly noticeable under theft cases which numbered 644 against 734 in 1892. Cases of receiving stolen property also fell from 50 to 44. There were 3 cases of simple robbery by men armed with sticks, none of which ended in conviction, and 73 of house-breaking with intent to commit theft, of which only 2 ended in conviction. In regard to this unsatisfactory result, the Assistant Inspector-General refers to the difficulties experienced in tracing such offences as they occur almost entirely in the Railway jurisdiction in Native States, and are generally perpetrated on isolated huts of gangmen or gate-keepers.

The amount of property stolen during the year under report was Rs. 26,880 against Rs. 26,269 in the previous year. The same difficulties are said to exist in dealing with thefts from houses as with house-breaking, and for the same reasons. During the year Rs. 10,224 worth of property was recovered. The total number of cases in which property was stolen was 728 against 823 in the preceding year; property was recovered in 390 cases, giving a percentage of 53·57 against 52 in 1892.

The number of non-cognizable offences was 91 during the year, in 76 of which the Police were employed to make enquiries.

The force consisted of 599 men of all ranks and 51 Police chaukidars, or an increase over the preceding year of 5 Policemen. The number of stations on the line increased from 188 to 204 owing to the opening of new stations; but the length of line remained unchanged at 1,413 miles. The total cost of the force amounted to Rs. 1,24,088 against Rs. 1,23,462 in 1892.

Southern Maratta Railway System within the Bombay Presidency.

Mr. Duggan was in charge of the Railway Police throughout the year.

There were 254 cases reported during the year against 352 in the previous year. The decrease was principally under thefts and offences under the Railway and Abkari laws. Of more serious crimes there was 1 case of dacoity, in which a gang mukadam was robbed of property of the value of Rs. 200, and 1 case of robbery, in which a gateman was robbed of property worth Rs. 221, conviction was secured only in the latter case. Cases of house-breaking decreased from 17 to 7, of which 3 were excluded as false; real cases of theft decreased from 97 to 79. There were 12 cases reported under the Abkari Act against 22 in the previous year, and all of them were of smuggling Goa liquor into British Territory.

The total value of property stolen amounted to Rs. 5,980-4-9, including Rs. 58-5-6 pending at the end of 1892, which shows an increase of Rs. 2,466-4-9 over that of the previous year. Of the amount of property stolen, 68·51 per cent. was recovered, an improvement of 17 per cent. over the preceding year, and this is also noticeable in regard to the percentage of cases in which property stolen was recovered, *viz.*, 82·41 against 74·54 in 1892.

The number of non-cognizable crimes increased from 37 to 49, in 11 of which the Police were employed to make enquiries.

There was no addition to the jurisdiction of the Superintendent of Police during the year, the length of line having remained at 722 miles, but the number of stations increased from 91 to 92 owing to the opening of a new station at Sasvad Road. There was an increase of 2 Constables to the Pay clerks' party, bringing up the total strength of the force to 300, the cost of which amounted to Rs. 64,797 as compared with Rs. 62,396 in 1892.

Bhavnagar-Gondal-Junagad-Porbandar Railway.

Mr. Dossabhoy Nusservanji was in charge of the Police Department up to October 1893, when the Railway Police was amalgamated with the Kathiawar Agency Police under Mr. E. V. Mackay.

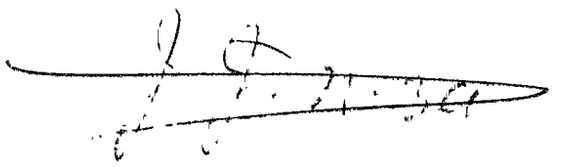
During the year 112 cases were reported to the Police, of which 5 were struck off as no crime; of the remaining, 70 were sent up for trial, 48 of which resulted in conviction, and 16 in acquittal or discharge. There was no case of thuggee or dacoity during the year under report. The total number of persons arrested during the year was 100 as compared with 122 in the previous year. Of these 63 were convicted, 31 acquitted or discharged, and 6 pending trial, giving a percentage of 63 convictions against 71 in the previous year.

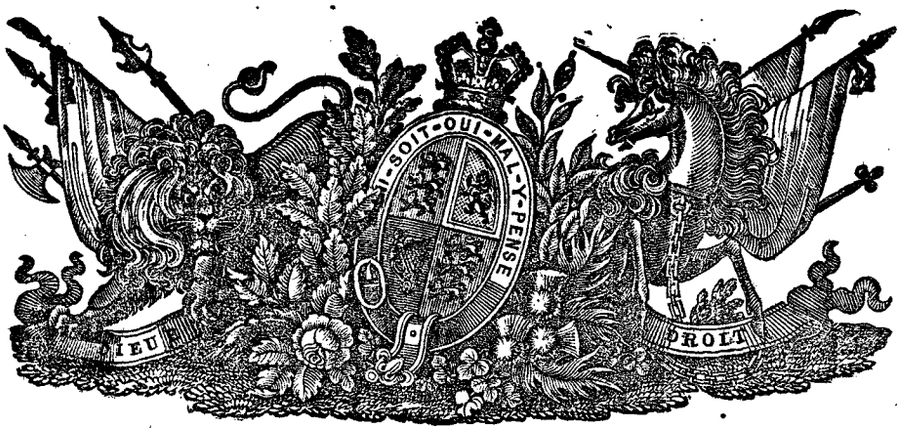
The total amount of property stolen during the year amounted in value to Rs. 3,789, of which Rs. 997, or 26 per cent. was recovered as compared with 63 per cent. recovered in 1892.

The force consisted of 20 subordinate officers and 63 constables and men, total 83, against 27 subordinate officers and 65 constables and men, total 93, in the previous year. The total cost of the force for the year under report was Rs. 20,253, or Rs. 53·23 per mean mile worked, against Rs. 18,768 or Rs. 56·24 per mile in the preceding year.

H. O. SELBY,
Acting Consulting Engineer for Railways.

23rd September 1894.





ADMINISTRATION REPORT

OF THE

RAILWAY DEPARTMENT,

BOMBAY PRESIDENCY,

FOR THE YEAR

1894-95.

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1895.

PAGE.

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ADMINISTRATION REPORT

OF THE

RAILWAYS UNDER THE GOVERNMENT OF BOMBAY FOR THE YEAR 1894-95.

The following tables give the lengths of the several lines of Railway under the control of the Government of Bombay during the year 1894-95. Table I shows the lines grouped according to gauge, and Table II according to classification :—

TABLE I.

Gauge.	Railway.	Open for Traffic for any part of the year.	Under construction.	Surveyed or under Survey.	Classification.
		Miles.	Miles.	Miles.	
5′ 6″	Great Indian Peninsula Railway ...	1,287	...	...	Guaranteed.
	Dhond and Manmad Railway ...	145½	...	...	State Imperial worked by Company.
	Khamgaon Railway	7½	...	...	Native State worked by Company.
	Amraoti Railway	5½	...	...	
	Wardha Coal Railway	44¾	...	...	State Imperial worked by Company.
	Bombay Baroda and Central India Railway	438½	...	...	Guaranteed.
	Patri Railway...	22¼	...	...	State Imperial worked by Company.
	Gaekwar's Petlad Railway	13½	...	...	Native State worked by Company.
	Godhra-Rutlam Railway	115½	...	...	State Imperial worked by Company.
	Rutlam-Muttra Railway	...	...	350	State Imperial to be worked by Company.
	Rutlam-Ujjain Railway	...	60½	...	
	Tapti Valley Railway...	...	...	261	Guaranteed.
	Hyderabad-Umarkot Railway ...	59	...	19	State Provincial.
		2,139	60½	630	
Metre.	Southern Mahratta Railway (including Bellary-Kistna Railway) ...	1,042	...	...	State Imperial worked by Company.
	Mysore Railway	296	...	...	
	Mysore-Nanjangud-Gudalur Railway.	15¼	...	54	Native State worked by Company.
	Guntakal-Mysore Frontier Railway...	119½	...	...	State Imperial worked by Company.
	Bangalore-Mysore Frontier Railway	51½	...	...	Native State worked by Company.
	Rajputana-Malwa Railway	1,122½	...	...	State Imperial worked by Company.
	Rewari-Ferozepore Railway	29¾	...	...	
	Cawnpore-Achnera Railway	261	...	...	
	Phalera-Rewari Railway	...	...	131½	
	Palanpur Deesa Railway*	17¼	...	...	
	Ahmedabad-Parantij Railway ...	...	...	47½	Private Company.
	Ahmedabad-Dholera Railway ...	...	...	78	Do.
	Bhavnagar-Gondal-Junagad-Porbandar Railway...	333½	...	...	Native State.
	Jetalsar-Rajkot Railway	46½	...	...	Do.
	Jamnagar Railway	...	...	50¼	Do.
	Gaekwar's Mehsana Railway ...	92¾	...	...	Native State worked by Company.
	Patan-Harij Railway	...	...	23	Do.
	Kolhapur Railway	29	...	...	Do.
		3,717¼	...	384½	
2′ 6″	Gaekwar's Dabhoi Railway	71¾	...	...	Native State worked by Company.
	Bahadarpur-Songir Railway	...	...	9½	Do.
	Baroda-Khakaria Railway	...	...	22	Do.
	Vishwamitri-Jambusar Railway ...	...	...	29⅝	Do.
	Broach-Jambusar Railway	...	...	30	State Provincial.
	Morvi Railway...	94½	...	...	Native State.
	Rajpipla State Railway	...	20	20	
		166¼	20	111¼	
	Grand Total ...	6,022½	80½	1,125½	

* The Palanpur Darbar has contributed towards the cost.

TABLE II.

Railway.	Gauge.	Open for Traffic.		Under Construction.		Surveyed or under Survey.	
		Miles.	Total.	Miles.	Total.	Miles.	Total.
Guaranteed—							
Great Indian Peninsula Railway	Standard ...	1,287		...		...	
Bombay Baroda and Central India Railway...	Do. ...	438½		...		...	
Tapti Valley Railway	Do. ...	...		...		261	
			1,725½		...		26[illegible]
State Imperial worked by Companies—							
Dhond and Manmad Railway	Standard ...	145½		...		...	
Wardha Coal Railway	Do. ...	44¾		...		...	
Patri Railway	Do. ...	22¼		...		...	
Southern Mahratta Railway (including Bellary-Kistna-Railway)	Metre ...	1,042		...		...	
Mysore Railway	Do. ...	296		...		...	
Guntakul-Mysore Frontier Railway ...	Do. ...	119½		...		...	
Rajputana-Malwa Railway	Do. ...	1,122¼		...		...	
Rewari-Ferozepore Railway	Do. ...	290¾		...		...	
Cawnpore-Achnera Railway	Do. ...	261		...		...	
Phalera-Rewari Railway	Do. ...	...		...		131½	
Palanpur-Deesa Railway	Do. ...	17¼		...		...	
Godhra-Rutlam Railway	Standard ...	115½		...		...	
Rutlam-Muttra Railway	Do. ...	...		...		350	
Rutlam-Ujjain Railway	Do. ...	...		60½		...	
			3,476¾		60½		481½
State Provincial—							
Hyderabad-Umarkot Railway	Standard ...	59		...		19	
Broach-Jambusar Railway...	2′ 6″ ...	...		...		30	
			59		...		49
Native State—							
Bhavnagar-Gondal-Junagad-Porbandar Railway	Metre ...	333½		...		...	
Jetalsar-Rajkot Railway	Do. ...	46½		...		...	
Jamnagar Railway	Do. ...	...		...		50¼	
Morvi Railway	2′ 6″ ...	94½		...		...	
			474½				50¼
Native State worked by Companies—							
Khamgaon Railway	Standard ...	7½		...		...	
Amraoti Railway	Do. ...	5½		...		...	
Gaekwar's Dabhoi Railway	2′ 6″ ...	71¾		...		...	
Bahadarpur-Songir Railway	Do. ...	...		...		9½	
Baroda-Khakaria Railway	Do. ...	...		...		22	
Vishwamitri-Jambusar Railway	Do. ...	...		...		29¾	
Gaekwar's Petlad Railway	Standard ...	13½		...		...	
Gaekwar's Mehsana Railway	Metre ...	92¾		...		...	
Patan-Harij Railway	Do. ...	..		...		23	
Kolhapur Railway...	Do. ...	29		...		...	
Mysore-Nanjangud-Gudalur Railway ...	Do. ...	15¼		...		54	
Bangalore-Mysore Frontier Railway ...	Do. ...	51½		...		...	
Rajpipla State Railway	2′ 6″ ...	...		20		20	
			286¾		20		158¼
Private Companies—							
Ahmedabad-Dholera Railway	Metre ...	...		...		78	
Ahmedabad-Parantij Railway	Do. ...	...		...		47½	
			...				125½
			6,022½		80½		1,125½

Chapter I.—General.

(For the official year ending 31st March 1895.)

Open mileage and extensions of line sanctioned.

The length of Railways under the control of the Government of Bombay sanctioned at the end of 1893-94 was 6,024¼ miles, of which 5,953¼ miles were open for traffic on the 31st March 1894. Of the open mileage 2,068½ miles were on the 5′ 6″ gauge, 3,719 miles on the metre gauge, and 165¾ miles on the 2′ 6″ gauge. Of the unopen mileage, which was under construction, 70½ miles were on the standard gauge and ½ mile on the 2′ 6″ gauge. An additional length of 60½ miles was sanctioned during the year 1894-95 in extension of the Godhra-

Rutlam Railway from Rutlam to Ujjain. Sanction was also given at the end of the year to the construction of the Rajpipla State Railway on the 2′ 6″ gauge from Anklesvar to Sarsa, 20 miles. The following lengths were opened for traffic during 1894-95 :—

	Miles.
Extension on the 2′ 6″ gauge to connect the Morvi Railway with the Jetalsar-Rajkot Railway across the Aji River at Rajkot, opened on 6th August 1894	½
Dohad to Rutlam on the Godhra-Rutlam Railway (standard gauge), opened on 22nd October 1894	70½
	71

During the year 1894-95 a length of 1¾ miles was removed from the main line of the Southern Mahratta Railway from east of Tadepalli station to the Kistna Canal (metre gauge).

Accordingly on the 31st March 1895 the total length of lines open under the control of the Government of Bombay was 6,022½ miles (2,139 miles on the standard gauge, 3,717¼ miles on the metre gauge and 166¼ on the 2′ 6″ gauge); while a length of 60½ miles on the 5′ 6″ gauge and 20 miles on the 2′ 6″ gauge remained to be finished.

Important works completed and in progress.

On the *G. I. P. Railway* during the year under review the work of strengthening the old 30 feet girders was proceeded with. The new girders to replace the 27 through spans of B. B. & C. I. Railway type girders, which have been condemned, arrived, and on ten of these spans the work of erection was commenced. The new girders to replace the 9 deck spans of similar type girders also arrived towards the end of the year, and work upon 5 of these spans was commenced. The bowstring girders at the Singla and Kareli bridges were replaced; and work was in progress at the Kali Marchan Bridge. The strengthening of five 60 feet spans of girders on the Waghur bridge was almost completed by the end of the year. The work of providing a uniform system of signalling arrangements throughout the Company's system was continued, as also that of fitting the coaching stock with Pintsch's patent gas lighting apparatus. The new station buildings at Chinchpokli, Currey Road and Kurla were practically finished and brought into use. The new suburban station at Mazgaon was completed and opened on 1st July 1894. The renewal of the road with 82 lbs. steel rails was pushed forward. On the Dhond and Manmad State Railway the work of fencing was continued, only about 25 miles remaining to be erected. The renewal of the obsolete type of permanent way on the Khamgaon State Railway with second-hand 68 lbs. iron rails laid upon old pattern iron pot sleepers was taken in hand towards the end of the year.

On the *B. B. & C. I. Railway* the double line between Baroda and Itola was practically completed. The work of converting the simple vacuum brake of the coaching stock to the automatic type was proceeded with; that of fitting the coaching stock with Pintsch's patent gas lighting gear was also in progress. The new terminal station at Colaba, with the re-arrangement of the station yard, was approaching completion. The Falkland Road Overbridge, north of Grant Road Station, was completed and brought into use towards the end of the year. Work was commenced on the new General Administrative Offices of the Company opposite Church Gate Station. Preparations were in progress for the renewal of the defective 60 feet Warren girders on the line with plate girders of the Government type. Sanction was given at the end of the year to the strengthening of the road on the Anand-Godhra Branch by the addition of a pair of pot-sleepers under each pair of 20-feet rails on 41⅘ miles of the line not already thus equipped.

The remaining portion of the *Godhra-Rutlam Railway* from Dohad to Rutlam, 70½ miles, was completed, and the line was opened through on the 22nd October 1894. An extension of the line to Ujjain, 60½ miles, was sanctioned and work was started at the beginning of 1895. A survey of the proposed extension northward was carried out, as far as the second crossing of the Chambal river beyond Bara, and the survey of the further portion to Muttra was in progress.

On the *Rajputana-Malwa Railway* the principal work in progress during the year was the gradual relaying of the road with 50 lbs. steel rails, about 40 miles having been completed during 1894. Two new bridges, each of four spans of 22 feet girders, were built between Khalilpur and Jataoli, where the line was breached in 1893. On the Kheralu Branch of the Gaikwar's Mehsana Railway the Motipura Bridge was widened by the addition of a 60-feet girder at the south end of the bridge, as the floods of 1893 had shown that the waterway originally provided was inadequate.

On the *Southern Mahratta Railway* system the additional sidings, platforms, staff quarters, &c., for the Customs Department at Castle Rock were completed and brought into use; as also the water-supply arrangements at Hubli. Special renewals of the half-round Kanara teak sleepers west of Dharwar were continued; and on the older sections of the Mysore Railway about 40,000 of the pine sleepers in the road were renewed during 1894. The miscellaneous works at Hubli in connection with the Workshops have been practically completed. Additional staff quarters have been erected at Poona, Gadag, Guntakul and Bangalore.

The Aji Bridge at Rajkot was completed, and the *Morvi Railway* was taken across the river into the Jetalsar-Rajkot Railway terminus on the opposite bank at Rajkot.

The construction of the *Rajpipla State Railway* was sanctioned at the end of the year, and preparations were in progress for commencing work on the first 20 miles, from Anklesvar to Sarsa.

Principal events.

The principal events of the year 1894-95 were the completion and opening through of the Godhra-Rutlam Railway (standard gauge); the linking up of the metre and 2' 6" gauge lines at Rajkot; the sanction of, and commencement of work on, the Rutlam-Ujjain (standard gauge) and the Rajpipla State (2' 6" gauge) Railways; the prosecution of the survey for an extension of the Godhra-Rutlam Railway (standard gauge) from Rutlam northwards to Muttra; and the grant of a concession to Messrs. Killick, Nixon & Co., of Bombay, to construct the Ahmedabad-Parantij Railway with rupee capital raised in India.

Chapter II.—Works completed and in progress.

(*For the official year ending 31st March 1895.*)

G. I. P. Railway System—(*Standard Gauge*).

(Includes the Dhond and Manmad, the Khamgaon, the Amraoti and the Wardha Coal State Railways.)

The new interlocking signalling arrangements at Victoria Terminus and Masjid, as well as those at Byculla, were completed and brought into use in August 1894.

On the removal of the Byculla Station about half a mile to the north of the old site, petitions were received from the residents in the neighbourhood of Mazgaon, asking for the establishment of a new station. This request was granted, and a new Mazgaon Station, immediately to the north of Hancock Bridge, was opened on the 1st July 1894 for local and suburban traffic.

The works undertaken for the Locomotive Department to the south of the old Byculla Station were completed. They include alterations to the old passenger engine-shed and to the yard; a new running shed with sidings and tank-houses for goods engines; and a half-round engine-shed.

The old wooden platforms at Chinchpokli and Currey Road Stations were replaced by more substantial and permanent structures.

A new Station and Staff-Quarters at Kurla were nearly completed at the end of the year, on a site about a mile to the north of the original station.

The cylinders of the bridge crossing the Mumbra tidal creek at mile 25·10 were cased with others of cast iron of 3 feet greater diameter, the space between being filled in with cement concrete.

GREAT INDIAN PENINSULA RAILWAY COMPANY.

A siding was laid into the premises of the Indian Cotton Seed Company at Mumbra Station and brought into use in August 1894.

A bungalow for the Medical Officer at Igatpuri was completed and occupied during the year.

Two permanent loop lines with two temporary block stations were put in between Kirkian and Palasner.

Singagi crossing station, at mile 381, North-East line, was opened for goods traffic in November 1894, the necessary accommodation having been completed.

Owing to the growth of traffic, sanction was given during the year to the carrying out of extensive additions and alterations to the station and station yard at Akola. All the sidings were laid, and both the new platform walls completed and earthed up. The foundations for a new goods-shed have been built, and at the end of the year preparation of materials for all other works was well forward.

To the north of Kirkee Station, a special platform and sidings have been constructed for Messrs. Meakin and Co., in connection with their brewery at the village of Dapuri.

At Poona certain alterations were carried out in the 3rd Class Waiting-shed.

The work of renewing the road with 82 lbs. steel rails in place of the old 68 and 69 lbs. rails was continued. Up to the end of 1894, 82 per cent. of the main line had been laid with steel rails. A large addition to the number of oval pot sleepers in the road was effected with the result that the number of wood sleepers in the main line is now only 12 per cent. of the total.

Considerable progress was made in providing a uniform system of out-door signals, the work being carried out by sections.

The demarcation of the land on this Railway with boundary stones is being steadily carried out.

The work of fitting the coaching stock with automatic vacuum brakes and with Pintsch's gas lighting apparatus and the goods stock with screw couplings was continued throughout the year. During 1894, 16 locomotives and 66 vehicles were fitted with the automatic brake, making a total at the end of the year of 102 locomotives and 326 vehicles so fitted. Up to the end of the same period, the number of carriages fitted for lighting with Pintsch's gas was 39, fourteen of which were fitted during the year. During the same period 1,184 screw couplings were fitted to wagons. The intention at present is to fit 30 per cent. of the wagon stock with screw couplings.

The fencing of the Dhond and Manmad Railway was continued, there remaining only about 25 miles of the line unfenced at the end of the year.

On the Wardha Coal Railway, the renewal of sleepers was carried out at the rate agreed upon between Government and the G. I. P. Railway Company, *viz.*, 6,294 sleepers per year.

On the Khamgaon State Railway, the necessity for a better class of road had long been apparent and during the year under report it was finally decided that the permanent way should be renewed with second hand 68-lb. Iron rails and pot sleepers released from the main line. The work was commenced towards the end of the year.

The renewal and strengthening of the girders that have been found defective in strength is being carried out with great vigour and push.

Strengthening of 30 feet girders, 430 spans.—Up to the end of 1894 the strengthening of 257 spans had been completed, and the work of strengthening the rest was in progress.

B. B. & C. I. Railway type 60 feet girders—36 spans.—Girders for all the 27 through spans had arrived from England, of which 10 spans were in course of erection, *viz.*, Oomar Nala, mileage 308·79, Nagpur Branch, 4 spans, two of which (Down line) were passed for traffic on 28th January 1895, and the other two

(Up line) were brought into use in the beginning of March 1895, and Benisherur bridge, mileage 330·45, South-East line, 6 spans. All the 9 deck spans had also arrived.

Chinni Creek type 100 feet girders—9 spans.—The single spans at the Singla (mile 531·34) and Kareli (mile 552·38) bridges, North-East line, were replaced during the year by others in stock, the new structures being brought into use in June 1894. The five spans for the Kali Marchan bridge (mile 388·67, North-East line) had arrived from England and were in course of erection. The ironwork for the Sangli and Naktwa bridges had not yet arrived.

Waghur and Mannair type 62 feet girders—16 spans.—The strengthening of the girders in the Waghur viaduct was almost completed.

Ehegaon viaduct, Thul Ghat, 6 spans of 142 feet girders.—The best plan of strengthening these girders without stopping the traffic is still under consideration.

Thana Creek, 1 span of 84 feet girders.—This was damaged during the year by a girder in transit accidentally falling on it. The work of lengthening the piers of this bridge to carry the new girders of a stronger type was taken in hand towards the close of the year.

The piers of the Mussak bridge (mile 327, North-East line) which were washed away in July 1894, were re-built. The bridge was completed and reopened in the beginning of January 1895.

B. B. & C. I. Railway.—(*Standard Gauge*).

Sanction was given in January 1891 to a scheme providing for the erection of a new and more commodious station building at Colaba Terminus and for the re-arrangement of the station yard. The work, however, could not, for various reasons, be taken in hand before the middle of 1893. At the end of the year under report the new station building was nearing completion, the rail roof columns were in position and the roof girders, which had arrived in the country, were in course of erection. The sanctioned estimates for the works here aggregate close upon five lakhs.

The Company's General Offices have hitherto been accommodated in a hired building in the Fort. The project of providing a suitable building had been under consideration for many years, a site for it being reserved at the south-western corner of the Marine Lines Estate opposite the Church Gate Station. The plans and estimates were submitted to Government early in 1894, and were approved in May of that year, work being started immediately after under the supervision of Mr. F. W. Stevens, C.I.E., Architect. The sanctioned estimate amounts to nearly six lakhs, exclusive of the cost of supervision and architest's fees, as well as the cost of certain subsidiary works. During the year the foundations were completed to plinth level and the work was in full swing.

The water service pipes in the Grant Road Station yard were renewed with pipes of a larger bore, and additions were made to the signalling arrangements at that Station.

One of the recommendations of the Overbridge Committee of 1890 was carried out during the year by the completion of a masonry overbridge at the Falkland Road level-crossing, north of Grant Road Station, where only a foot-over-bridge existed before. The work was sanctioned in 1891, but its commencement was delayed by the course of the preliminary negotiations with the Municipality. The work was put in hand on the Municipality undertaking to meet the cost of any extra land that might be necessary for the emplacement of the bridge. It being understood that the Tramway will not be taken across the bridge, a stiffer grade has been adopted than was originally contemplated. Owing to an objection from the Municipality on the score of shutting out light and air from adjacent houses, the design was also so far altered as to replace 400 feet of parapet wall on both approaches with cast-iron fencing. The bridge was completed and handed over to the Bombay Municipality for the use of the public on the 23rd February 1895. The work was estimated to cost about $3\frac{3}{4}$ lakhs, but the actual cost is much below the estimate, owing principally to better foundations having been encountered than were estimated for.

B.B.&C.I. RAILWAY.
(Including the Rajputana Malwa Railway)
and LINES of Railways in Connection.
Scale 64 Miles to One Inch.
Lines worked by B. B. & C. I. Ry. Co.
B. B. & C. I. broad (5ft. 6in.) gauge lines.
Rajputana Malwa metre gauge.
H. H. the Gaekwar (2ft. 6in.) State line.
Other completed lines.
Lines under construction.
Lines projected.
Lines projected by B. B. & C. I. Ry.
KASHMIR
NEPAL
PUNJAB
N. W. PROVINCES & OUDH
RAJPUTANA
CENTRAL INDIA AGENCY
BOMBAY PRESIDENCY
CENTRAL PROVINCES
HYDRABAD
KUTCH
KATTYWAR
Gulf of Kutch
Gulf of Cambay
Rann of Kutch
Mouths of the Indus
BOMBAY
PESHAWAR
RAWALPINDI
LAHORE
AMRITSAR
MOOLTAN
BAHAWALPUR
BIKANEER
JEYPORE
AJMERE
BARODA
AHMEDABAD
SURAT
NAGPUR
AKOLA
KARACHI
KOTRI
SUKKUR
KELAT
QUETTA
CHAMAN
DELHI
MEERUT
ALLAHABAD
LUCKNOW
CAWNPORE
JABALPUR
INDORE
BHOPAL
POONA
DHOND
MANMAD
JUBBULPORE
WARORA Coal Fields
Rewah Coal Fields
Umaria Coal Fields
Kamptee Coal Fields
Chanda Coal Fields
Wun Coal Fields
Pench Valley Coal Fields
Pathakhera Coal Fields
Sohagpur Coal Fields
Mohpani Coal Fields
Sarni Coal Fields
Kotma Coal Fields
Pali Coal Fields
Sirmur Coal Fields
Jhilmili Coal Fields
Hingoli Coal Fields
Kamptee Coal Fields
Chimoora Coal Fields
Mandla Coal Fields
Nimad Coal Fields
Bundelkhand Coal Fields
Rewah Coal Fields
Umaria Coal Fields
Kamptee Coal Fields
Chanda Coal Fields
Wun Coal Fields
Pench Valley Coal Fields
Pathakhera Coal Fields
Sohagpur Coal Fields
Mohpani Coal Fields
Sarni Coal Fields
Kotma Coal Fields
Pali Coal Fields
Sirmur Coal Fields
Jhilmili Coal Fields
Hingoli Coal Fields
Kamptee Coal Fields
Chimoora Coal Fields
Mandla Coal Fields
Nimad Coal Fields
Bundelkhand Coal Fields

At the Parel Station new latrines have been provided for the menials, and these and the old latrines have been connected with the main drain at that place.

Additional shunting sidings are being put in at Dadar Junction on land temporarily lent for the purpose by the G. I. P. Railway Company.

At the Santa Cruz Station a dead end siding and cross over road were provided, and permanent quarters for the Station Master and his Deputy are being put up.

A new siding has been provided at Borivli Station for the accommodation of the local train stock.

At Udvada, a new station is being built a mile to the south of the present one, which will be dismantled when the new one is ready.

At the Wanki river near Bulsar, a bund was built some years ago for the benefit of the Railway Company's Water-works at that place. This, however, caused inconvenience to the cart-traffic, and with a view to remove it the Public Works Department are constructing a low level bridge towards which the Railway Company have contributed the required number of old rails and fish plates.

The well at Amroli has been deepened and a water crane with four fire hydrants provided. Permanent quarters for the Station Master and his Deputy have been erected.

Permanent quarters for Police and Traffic Staff are being put up at Anklesvar.

Improvements in the water-supply have been made at Miyagam to meet the requirements of the Locomotive Department.

A part of the Dhadhar Bridge at mile 236 near Itola was damaged by heavy floods on the 24th July 1894, one of the girders coming down in consequence of the south abutment being washed away. The bridge is being reconstructed, traffic being carried in the meantime over a temporary high level diversion.

The work of doubling the line between Baroda and Itola, a distance of $10\frac{3}{4}$ miles, was continued during the year and was nearing completion. Earth-work and masonry in bridges were completed; ballast was being spread and the laying of permanent way was in hand. The doubling of the two iron bridges on the same length was also in hand.

At Mehmadabad an additional siding and cross-over road have been provided.

At Kharaghoda on the Patri Branch, several new sidings have been put in to enable the Salt Department to open new salt pans, in order to meet the demand caused by the partial failure of Sambhar salt.

Wire-fencing for a length of 7 miles on the Wadhwan line, and 15 miles on the Godhra Branch is being erected, and sanction has been given for a further length of 8 miles on the latter branch.

Sanction was also given towards the end of the year to an estimate for strengthening the road on the Anand-Godhra Branch by the addition of a pair of pot-sleepers under each pair of 20 feet rails on those portions of the line—in all $41\frac{4}{5}$ miles— which have not already been thus strengthened. This work is necessitated by the opening through of the Godhra-Rutlam Railway and the placing of heavier engines on the line.

The work of fitting screw couplings to the goods stock and Pintsch's gas fittings to the passenger stock was proceeded with during the year; also that of converting the simple vacuum brake to the automatic type.

It was finally decided during the year that all the 60-feet Warren girders shall be replaced by plate girders, 260 pairs of which have been accordingly already indented for.

GODHRA-RUTLAM RAILWAY—(*Standard Gauge*).

The remaining $70\frac{1}{2}$ miles of this Railway from Dohad to Rutlam were completed during the year and the line was accordingly opened through for public traffic on 22nd October 1894.

The opening was delayed by various causes, one of which was the fact that on the 15th June, while the west end 100 feet girder of the Anas bridge at mile 59½ was being erected the staging caught fire, which damaged the girder and the face of the abutment. Temporary arrangements were then made for passing traffic. The damage has since been repaired, duplicate parts of the damaged girder having been obtained from England. The bridge was inspected and passed on the 13th March 1895.

The heavy cutting at mile 104 still remained unfinished at the time of opening, the line being carried over a diversion. At the end of the year the work was nearing completion.

At Bamnia, 88 miles from Godhra, between Amargarh and Bhairongarh, a small station is being erected at the special request of the Indore Darbar in their territory.

A large number of staff quarters for Locomotive menials were in course of construction at Rutlam.

Level-crossing huts had been nearly completed over the whole section, except between Dohad and the Anas river.

Wire fencing is being erected throughout.

As at the date of opening through a good deal of work remained to be done in connection with the banks and cuttings, the section from Limkhera to Rutlam was made over to the open line engineers only in January 1895.

Rutlam-Ujjain Extension.—The construction of a further extension of this line, from Rutlam to Ujjain, 60½ miles, was sanctioned at the end of 1894, and work was started in January, but not much progress could be made owing to delay in formally taking up land which commenced to be handed over only on and after 15th February. The interval was spent in surveying a new alignment between miles 17 and 27. The new location between these points has been very successful in reducing the work throughout and in securing a better crossing of the Chambal river.

The Chambal bridge foundations had been started and the operations of collecting materials, burning lime, &c., were in full swing. At several of the other bridges also material was being collected and the founds taken out. The foundations all through, it is thought, are likely to give trouble judging from the trial-pits excavated. Local quarries are not to be relied on for the bridges between miles 3 and 12, and it may be necessary in consequence to wait for these till the rails can be laid and stone trained out specially. It was proposed to lay the metals on the first ten miles with permanent way materials purchased from the Bhopal-Ujjain Railway, but it was found that that line could not spare the materials.

The Rutlam-Bara-Muttra line, if made, will take off from Nagda on this extension, 25½ miles from Rutlam.

Gaekwar's Railways.

Gaekwar's Petlad Railway (Standard Gauge).—With the exception of the 18 gate-lodges referred to in last year's report, no works of any importance were carried out on this line during 1894-95.

Gaekwar's Dabhoi Railway (2' 6" Gauge).—The waiting rooms for ladies and gentlemen at Dabhoi, Chandod and Bahadarpur were completed during the year.

The waiting sheds at Ten Talav and Goya Gate were also finished.

The damages caused by the floods in July 1894 have all been repaired and the banks made up, with the exception of the breach behind the west abutment of the 2-20 feet girder bridge at mile $\frac{13}{4}$. Here the line is carried on a sleeper trestle, as the question of waterway is under consideration. Additional waterways were constructed during the year at mile 27 on the Dabhoi-Chandod Section.

Gaekwar's Mehsana Railway—(Metre Gauge). On the Mehsana-Viramgam branch a third class waiting-shed has been added at Katosan Road Station, and at Bhankoda Station a small goods-shed platform has been built, some 40 feet in length with a masonry platform wall.

On the Patan Branch the abnormally heavy monsoons of preceding years had shown the need for additional flood openings and for raising certain banks near miles 6, 8, 12 and 17. These were completed in March 1895. The goods-shed and platform at Patan Station are being enlarged.

On the Kheralu Branch the Motipura Bridge at mile $\frac{26}{3-4}$, consisting of 2 spans of 60 feet girders, was damaged by floods on the 22nd June 1893. The damage has been repaired and another 60 feet girder added at the south end. The bridge as repaired and enlarged was inspected and passed on the 20th June 1894.

RAJPUTANA-MALWA RAILWAY SYSTEM—(*Metre Gauge*).

(Includes the Palanpur-Deesa Railway).

The low level tank at Ahmedabad to hold 30,000 gallons of water was completed. A metre gauge siding to the Railway Company's oil mill was also laid at Ahmedabad.

The new locomotive quarters at Abu Road were completed and occupied during the year; the institute was also practically finished.

At Mori Station a new tank to hold 36,000 gallons of water has been erected, advantage having been taken of a high mass of rock near the station on which to build it.

At Guriya, a new ashpit, 50 feet long, has been built and the water column removed from the centre of the station and placed more conveniently at the north end near the ashpit.

On the Bandikui Division between Jataoli and Khalilpur Station, the line was badly breached in July 1893. In February 1894, sanction was given to the construction of two new bridges here each of four spans of 22 feet girders at miles $\frac{42}{4}$ and $\frac{42}{12}$, respectively. The bridges were completed and brought into use in July 1894.

At Hathras City the outward siding and platform wall were completed and a new siding for rolling stock with a new cross-over laid in. A siding has also been laid to Phoolchund's cotton press in the city.

A new station building has been erected at Gursahaiganj.

The quarters for drivers at Mhow were completed during the year.

New metre gauge sidings have been put in at Rutlam Station for local traffic.

The work of re-aligning the line between Fatehabad and Indore was continued. The line at mile 290-91 was removed from the diversion to its original alignment over a newly constructed two metre girder bridge.

Twenty miles of wire fencing was erected between Sojat Road and Haripur and smaller lengths at other places, making in all about 33 miles. Fencing is in progress on other portions of the line.

During 1894, more than 40 miles of road, including 10½ miles between Haripur and Chandaval, were renewed with 50 lbs. steel rails. The relaying of the 10 miles between Sivaj and Dhoreshar was in progress.

A new Post Office building and certain additions to the Station Master's quarters were in progress at Marwar Junction at the end of the year.

A new goods-shed is being built at Jaitu.

Large additions have been made to the goods-shed accommodation at Nasirabad, the goods-shed and platform have been extended and a new siding put in.

The additions and alterations in the goods yard at Cawnpore were completed.

A temporary metre gauge siding and a catch siding were laid in at Ujjain for the Bhopal-Ujjain Railway.

Sanction to the construction of two additional spans of 40 feet girders to the bridge in a 15 feet bank at mile $\frac{532}{16}$ on the main line was given in February 1895, and the work is in hand.

No new works of importance were undertaken on the Palanpur-Deesa Branch during the year.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre Gauge*).

Main Line —(From Portuguese Frontier to Tadepalli).—The establishment of a Customs Station at Castle Rock on the termination of the Anglo-Portuguese Treaty necessitated the provision of extra sidings, sheds and platforms to facilitate the Customs examination. These have all been completed, as also quarters for the Customs and Salt staff.

The half-round Kanara teak sleepers west of Dharwar are being replaced by steel and Mysore teak and Pingadu sleepers. The work was continued during the year, and about 30,000 of the Kanara teak sleepers renewed. The work could not be proceeded with as fast as desirable, owing to the supply of new sleepers failing to meet the demand.

Several miscellaneous works have been carried out during the year at Hubli, in connection with the workshops. Bain's fencing for enclosing the traffic yard at this important junction has been received, but cannot be erected until the yard has been thoroughly resurveyed and demarcated, for which arrangements are in hand. The new water-supply scheme carried out by the Hubli Municipality and towards the cost of which the Railway Company has contributed $2\frac{1}{2}$ lakhs is now in full swing and is working satisfactorily.

A number of additional staff quarters to meet the requirements of the Traffic Department and a Railway Institute are in a forward state of progress at Gadag.

Several additional quarters for the staff have also been built at Guntakul.

Additional works, costing nearly Rs. 34,000, to meet the requirements of the Locomotive Department and an Institute for Railway employés are in progress at Donakonda.

The additional waterways between Rangapuram and Nandyal to which reference was made in the last report have been completed, but the bridges at miles $\frac{292}{5}$ and $\frac{293}{1}$ were again washed away by an unprecedented flood. A minute survey has been made of the adjoining catchment areas, and proposals for improving the waterways of these bridges are under consideration. In the meantime the line at these localities is worked over temporary diversions.

Bijapur Branch, Harihar Branch, Kolhapur Railway.—No special works worthy of note were executed or in progress on these sections during the official year under report.

Poona Branch (Londa to Poona).—The Australian Kharri wood sleepers on the Alandi Ghat have all been renewed; renewals of the same description of sleepers were in progress on the Salpa Ghat and were expected to be completed by June 1895.

The question of improving the water-supply for Locomotive purposes at various stations on this as well as on other branches is receiving careful attention.

Quarters were completed during the year for the Locomotive and Traffic Staff at Poona Junction.

Additional goods shed accommodation has been provided at several stations to meet the growing demands of traffic.

Certain protective works have been constructed between miles 243 and 264.

Booking Offices and Waiting Sheds are in course of erection at Shenoli, Takari, Shedbal and Raibag, where station work is at present conducted in a part of the Station Master's quarters.

The north abutment of the Malprabha Bridge is being buttressed to prevent its being pushed forward by the heavy bank behind it.

MAP
OF THE
SOUTHERN MAHRATTA RAILWAY
AND ADJACENT LINES
Scale of 64 Miles to an Inch
AGENT.
CHIEF ENGINEER.
CHIEF DRAFTSMAN
REFERENCES
S.M.R. N.W.I.P. lines open
do. Proposed
Other Metre Gauge lines open
Do. proposed
Broad Gauge lines open
Do. proposed
Reduced to ½ Scale
Govt Photozinco Office, Poona 1894
KHANDWA
BHUSAWAL
DHULIA
JALAM
KHAMGAON
CHALISGAON
MANMAR
AMRAOTI
BADNAIR
NAGPUR
WARDHA
SUNDRA
RAIPUR
WARORA
CHANDA
PANAVAR
RAIKNER
MULAPUR
MYLARUM
KAZIPET
SECUNDERABAD
HYDERABAD
BEZVADA
MASULIPATAM
KALYAN
BOMBAY
ALIBAG
POONA
DHOND
BARSI ROAD
HOTGI
ANJANWEL
CHIPLUN
RATNAGIRI
KOLHAPUR
MIRAJ
WADI
RAICHUR
MORMUGAO
CASTLE ROCK
GOA
HUBLI
GADAG
KARWAR
KUMTA
HARHAR
DHARMAVARAM
NELLORE
MADRAS
ARKONAM
CHINGLEPUT
BANGALORE
MANGALORE
JALLARPET
MYSORE
NANJANGUD
VILLUPURAM
PONDICHERRY
SALEM
PORTONOVO
CALICUT
METTUPALAIYAM
ERODE
BEYPORE
MAYWARAM
PODANUR
TRICHNOPOLY
TANJORE
NEGAPATAM
DINDIGUL
MUTUPET
COCHIN
MADURA
QUILON
MANIYACHI
TUTICORIN
TRIVANDRUM
TINNEVELY

RAILWAYS IN KATHIAWAR
Scale of Miles.
10 5 0 10 20 30 40 50 60
G U L F O F K U T C H
L I T T L E R A N
K A T H I A W A R
P E N I N S U L A
G U L F O F C A M B A Y
DHRÁNGADRA
HALVAD
MORVI
CHUVA
VANKANER
DALADI
THAN ROAD
KUNDA
MULI
SAYLA ROAD
DOLIA
WADHWAN
VIRAMGÁM
AHMEDABAD
SANAND
DHOLKA
LIMBDI
CHOTILA
RANPUR
KUNDLA
BOTAD
NIBGALA
UJALVAV
VALA
CHAMARDI
DHOLA
SIHOR
GOGHA
BHAVNAGAR
VARTEJ
GONDAL
WINPUR
NAVAGAM
JETPUR
VAVDI
DHORAJI
CHOKI
JUNAGAD
VANTHLI
SHAHAPUR
VERAVAL
VERAVAL PATAN
CHORVAD ROAD
KESHOD
MALIA
LUNSHALA
JAMJODHPUR
KHAKHIJALLA
PANELI MOTI
BHAYAVADAR
SANJAJALIA
SAKHPUR
DHUNA
JODHPUR
JAMNAGAR
KANALUS
PORBANDAR
JAMNAGAR
KHAMBHALIYA
DWARKA
JAMKANDORNA
JODIYA
KHIRSARA
RAJKOT
HADMATIA
PADHARI
WANTHALI
ALIABADA
JAMNAGAR
BED
MAKAR
SALAYA
DHROL
SINDHAVADAR
HADALA
KUVAVA
BAMANBOR
ANANDPUR
PADVAD
VICHIA
JASDAN
ATKOT
KOTRA PITA
GADHADA
BUBRA
VASAVAD
DAMNAGAR
SONGAD
SANOSRA
AMRELI
KUNKAVAV
LUNKHIDIYAD
KHIJADIA
VAVDI
LATHI
SAVARKUNDLA
SAGHANVADAR
GARIADHAR
PALITANA
TALAJA
GADHADA
KUNDLA
DHARI
LAKHAPUTAR
GADHIYA
KANTARIA
MOVA
DADHA
GOPNATH
DEDAN
EGRIA
BABRIAVAR
VANKIA
SHIAL I.
JAFARABAD
KODINAR
DELVARA
DIU Portuguese Settlement
CHARA
VERAVAL
MANGROL
CHORVAR
SHIL
MADHAVPUR
BALAGAM
NAVIBANDAR
MYARI
BANTVA
ADODAR
KUTIYANA
KANDORNA
VARASURA
BARDA CHOKI
MIANI
RAVAL
BHANVAR
DHRAFA
VODALA
MENGNI
KANDORNA
SARAHAR
RIDRA
KALAVAR
LALPUR
SARAPADAR
HARMATIA
PADANA
PASSTRU
VARRALA
ARAMRA
BIDAD
NORU
MERIPUR
MORAN
BHATIA
KURANGA
GORAKMADI
BARA
GURGAT
EOT
AMBARDI
MERDARDA
SARSAI
BHILKA
MANEKVADA
BAGASRA
TUNSA
TALAJA
JUK
DHATHA
KANTARIA
GADHIYA
LAKHTAR
BAULA
SITHA
KHORU
TALSANA
NAL BAOLI
VITHALGAD
KODH
CHARADVA
SARA
ARNORAN
KHARPER
TANKARA
LATIPUR
BALAMBA
BALAPARI
TIKAR
MALIA
VARAVIA
KHARAGHODA
PATRI
BAJANA
DASADA
JHINJUVADA
Open line.
Under Survey
Open line.
B.G.J.RY
Jamnagar Ry
Morvi Ry

Mysore State Railway (From Harihar to Nanjangud).—Nearly 40,000 pine sleepers on the old Mysore Railway (Mysore-Gubbi Section) were renewed during the year.

Additional quarters for the staff at Bangalore have been built, and quarters for the staff at Harihar are in a forward state of progress. An institute for the use of the joint staff at Bangalore has also been sanctioned, and the work will be executed by the Madras Railway Company.

In consequence of the building of the new joint station at Bangalore, plans and estimates have been prepared for the re-arrangement of the Bangalore Station yard, and the work has been commenced.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

(Includes the Jetalsar-Rajkot Railway.)

Bhavnagar-Wadhwan Section.—On this section five sets of gangmen's huts were erected during the year, also gatemen's quarters between Bhavnagar and mile 3.

At Wadhwan a cast-iron tank to hold 6,000 gallons has been erected and the extension of the metre gauge siding is in progress.

A siding is being laid into a ginning factory at Botad.

At Limbdi the goods platform and siding are being shifted.

Fencing is being erected round the workshops at Ghadechi.

Dhola-Dhoraji Section.—Latrines have been provided at Dhasa Station where also water-supply arrangements have been completed.

Dhoraji-Porbandar Section.—The bank has been lowered and pitched at Supedi and from mile 127 to 128.

A new bridge of five spans of 30 feet arches has been built at the east approach of the Bahadar Bridge.

Additions and alterations have also been carried out at the Raidhra Bridge.

The siding at Lathi is being extended.

Jetalsar-Veraval Section.—A siding has been constructed to a ginning factory at Vadal.

Sidings are being constructed to the ginning factories at Shapur and Junagad.

At Jetalsar the school-house has been enlarged; the drivers' quarters are being extended, and a weigh-bridge and double cross-over road are being provided.

The restoration of the Oojet Bridge works damaged by the rains of 1893 is in hand.

Jetalsar-Rajkot Railway.—The principal works carried out during the year at Rajkot were a transhipment siding, an over-bridge, a turn-table, a water-tank crane with piping, and a goods platform.

Two spans of 20 feet have been added to the Pitharia Bridge.

A small store workshop and a house for the time-keeper have been erected at Gondal; also a water-hoist.

A well has been sunk at Ribda Station.

General.—Among the works in progress is the demarcation of the land permanently occupied by the Railway on all branches.

During the year about 865,500 cubic feet of stone ballast was entirely renewed on the old Bhavnagar-Gondal Section where needed, and contracts for some 325,000 cubic feet more were let.

The renewal of the old creosoted pine sleepers on the Bhavnagar-Wadhwan, and Dhola-Dhoraji Sections was pushed on during the year, up to the end of which some 201,290 new creosoted pine sleepers were laid in the road. The necessary renewals on the through line are now drawing to a close.

The Jetalsar-Veraval Section originally laid with Gir sleepers had up to the end of the year received 91,700 new creosoted pine square sleepers, and only a few Gir sleepers remained in the road, these being picked ones.

MORVI RAILWAY—(2′ 6″ *Gauge*).

Connection was effected with the Rajkot-Jetalsar Railway Rajkot Junction Station. The length over the Aji Bridge, about 3,254 feet, was laid with metre gauge rails and sleepers to 2′ 6″ gauge. Loop and other necessary sidings were put in. The work was sanctioned in January and completed and opened for traffic in August 1894.

1,086 steel sleepers for 19 lbs. rails have been renewed on the Main Line from miles 0 to 24 and 1,531 on the Rajkot Branch, chiefly on salty ground.

331 old teakwood sleepers have been replaced with new creosoted pine sleepers in the triangle at Vankaner Junction. 39 teakwood sleepers have been renewed on the Rajkot Branch.

One pier of the Asoi Bridge washed out in the last monsoon has been rebuilt.

Two new 6 feet culverts have been constructed and one extra opening added to culvert No. 148 on the Rajkot Branch Line.

A temporary station building and transhipping platform have been erected at Rajkot Junction Station.

A room has been added to the staff quarters at Khorana Station.

Two Harbury's patent latrines have been erected at Vankaner Junction Station.

Three rooms for the Permanent Way Gang have been built at Vankaner Junction Station.

Chapter III.—Lines under Survey or Projected.

(*For the official year ending 31st March 1895*).

Rutlam-Ujjain Railway (Standard Gauge, 60½ miles).—The construction of this line was sanctioned at the end of 1894, and work is in progress. The portion between miles 17 and 27 has been re-aligned, and the estimate has been revised and works out to Rs. 46,68,420, exclusive of fencing and rolling stock.

Rutlam-Muttra Railway (Standard Gauge, about 350 miles).—The first 25½ miles of this line, as far as Nagda, are already under construction. Of the rest of the line the portion from Nagda to the second crossing of the Chambal river (mile 222·30 from Rutlam) was also surveyed and located during the year. The main direction of the route is by a line from Rutlam eastward to the Sipra river at mile 41½, thence north to Gerot, mile 97½, thence north-east to Bara, mile 177, and thence north to the second crossing of the Chambal at Miana. The line from Nagda to this point is estimated to cost Rs. 1,73,83,068, or excluding fencing and rolling stock Rs. 1,45,56,165—about Rs. 74,000 per mile. The plans and estimates have been submitted to the Government of India. Alternative routes have also been surveyed at certain points. The survey of the line further north to Muttra and Aligarh was in progress at the end of the year. The survey party has been instructed also to make a reconnaissance from Joar to Bandikui and to estimate the cost of converting the existing metre gauge length from Bandikui to Delhi to the standard gauge.

Tapti-Valley Railway (Standard Gauge, 261 miles).—During the year under report, the G. I. P. Railway portion of the survey was reported upon by the officers concerned and the whole scheme was submitted to the Government of India in September 1894. No orders have yet been passed in connection with this project, but towards the end of the year an application was received from Messrs. Killick, Nixon and Co., of Bombay, for a concession on feeder line terms to construct the western portion from Surat to Amalner. The application is under consideration. The line located from Surat *vid* Vyara, Songhad and Nandurbar to Amalner, is 161 miles long and is estimated to cost Rs. 1,26,96,714, or Rs. 78,862 per mile, exclusive of rolling stock, the value of stores to be obtained from England being calculated at 1s. 6d. the

rupee. If a rate of 1s. 1d. be taken, the total is raised to Rs. 1,42,84,830, and the mileage rate to Rs. 88,726. Separate estimates have also been taken out for the following lengths :—

	Miles.	Rs.	Mileage rate. Rs.
Surat to Vyara	39·5	23,91,746	60,905
Surat to Songhad	49·78	31,16,091	62,597

The portion of the line between miles 94¾ and 126¾ is being re-surveyed with a view to see if an easier grade can be obtained.

The line surveyed by the G. I. P. Railway Company from Manmad *vid* Dhulia and Amalner to Jalgaon is 110·14 miles long and, taking the value of the rupee at 1s. 10d. for English stores, is estimated to cost Rs. 1,16,24,831, or Rs. 1,05,546 per mile. With exchange at 1s. 1d. the estimate would work out to Rs. 1,42,27,038, or Rs. 1,29,172 per mile, exclusive of rolling stock. Separate estimates have been prepared for the following lengths (with exchange at 1s. 10d.) :—

	Miles.	Rs.	Mileage rate.
Manmad to Dhulia	55·35	62,14,140	1,12,270
Dhulia to Jalgaon	54·79	54,10,691	98,753
Dhulia to Amalner	21·74	18,29,073	84,134
Amalner to Jalgaon ...	33·05	35,81,618	1,08,369

Some portions of this part of the project have since been re-surveyed and re-aligned, and the estimates revised with the result that considerable reductions are found to be feasible.

Baroda State Railways.—The project for the extension on the 2′ 6″ gauge from Bahadarpur to the Songir quarries, 9½ miles, made no further practical advance during the year, but the estimates were ordered to be revised.

At the request of the Baroda Darbar, the B. B. & C. I. Railway Company towards the end of the year undertook detailed surveys of lines on the metre gauge from Patan *vid* Sidhpur to Kheralu (about 38 miles), and from Kalol Road Station on the Rajputana-Malwa Railway to Vijapur (about 42 miles).

The B. B. & C. I. Railway Company also carried out a survey for the Baroda Darbar for a line on the 2′ 6″ gauge from Miyagam to Sinor, about 20 miles. A report and estimate with plans were submitted in October 1894. The estimate works out to Rs. 6,97,371, or Rs. 34,747 per mile.

No practical progress was made with any of the Gaekwari Railway projects referred to in last year's report.

Jamnagar State Railway (Metre Gauge, 50¼ miles).—During the year a detailed survey of this project was carried out, and plans and estimates submitted. The proposed branch to the port of Jodia has been given up, and it is now proposed to continue the line from Jamnagar to the port of Salaya, to the south-west. It was also found undesirable to take the same alignment as the existing road from Rajkot *vid* Dhrol to Jamnagar, owing to the very difficult crossing of the Und river near Dhrol. The line as located runs from Rajkot in a north-westerly direction to Pardhari, mile 15¼, where after crossing the Dhondi river it takes a westerly direction and running through Hadmatia, mile 24, Wanthali, mile 33¾, and Alia Bara, mile 41, terminates at Jamnagar, mile 50¼. The line is estimated to cost Rs. 23,61,138, or Rs. 46,941 per mile, including rolling stock. All preparations had been made to start the work of construction before the end of the year. This could not, however, be done as the project had been referred for the orders of the Secretary of State in connection with certain proposals made by the Jamnagar State for raising the necessary funds to meet the cost of the line.

Morvi Railway.—In connection with a proposal to convert this line from the 2′ 6″ to the metre gauge the survey of a new alignment from Wadhwan to Than was commenced in September 1894 and was almost completed at the end of the year. Estimates for converting the remaining portions of the line were also under preparation.

Rajpipla State Railway (2′ 6″ gauge, 20 miles).—Orders were issued towards the close of the year for the commencement of the work of construction on the first section from Anklesvar to Sarsa, 20 miles. This length is estimated to cost Rs. 8,25,136, or Rs. 41,821 per mile, including rolling stock. Preparations were in progress for starting work.

Kolhapur State Railway.—Nothing further was heard during the year about the projected extension of this line towards the sea-board.

Bombay-Konkan Railway.—During the year the Southern Mahratta Railway Company put forward an elaborate scheme for a railway on the metre gauge starting from Karad Road Station on the Poona Branch of their system *viâ* the Kumbharli Ghat and Chiplun to a point in the neighbourhood of Hog Island in the Bombay Harbour. The line was estimated to be about 202 miles in length, and the acting Agent, Colonel J. G. Lindsay, R.E., estimated that it could be made for about 158 lakhs, or about Rs. 78,000 per mile. The Agent, Southern Mahratta Railway Company, was informed that Government was not in a position to provide funds for a detailed survey of the project. The matter is under consideration.

Ahmedabad-Parantij Railway (Metre Gauge, about 47½ miles).—The negotiations with the B. B. & C. I. Railway Syndicate for the construction of this feeder line finally fell through. During the year, however, applications were submitted by Mr. James Currie, of Karachi, and Messrs. Killick, Nixon and Company, of Bombay, for the concession for this project on feeder line terms, the former offering to construct the line with sterling capital to be raised in England, and the latter with rupee capital to be subscribed by a company of Indian domicile. The Secretary of State decided to accept the latter offer, and the concession was accordingly given to Messrs. Killick, Nixon and Company. All preliminaries had been practically settled before the end of the year, it being decided that the line should be aligned so as to go to Naroda, Dabhora, Dehgam, Talod and Parantij, and that, with the single exception of Talod, the stations should be placed as close to the towns of those names as circumstances permit. A detailed survey with final location of the line is in progress.

Ahmedabad-Dholera Railway (Metre Gauge, 78 miles).—Mr. James Currie, of Karachi, also applied for a concession for the Ahmedabad-Dholka section (32 miles) of this long standing project on feeder line terms. The application is under consideration, but the Board of Directors of the B. B. & C. I. Railway Company have informed the Secretary of State that, as such a line as that proposed by Mr. Currie would greatly interfere with another scheme which the Board consider best for the interests of the district and of their Company, they do not feel they would be justified in granting assistance to Mr. Currie's project. The scheme advocated by the Board is an extension of the Gaekwar's Petlad Railway (standard gauge) from Petlad north-west *viâ* Sojitra and Dholka to Sanand on the Ahmedabad-Viramgam section of the Company's own line.

Barsi Railway (2′ 6″ Gauge, about 22 miles).—In last year's report it was stated that the promoters of the Barsi Steam Tramway project had appealed to the Secretary of State against certain provisions of the Order published under the Indian Tramways' Act embodying the terms of the concession. Information was received during the year that the Secretary of State had decided to treat this project as for a light railway under the Indian Railways Act. Final orders about this project were awaited.

Other Railway Projects.—No action of any importance was taken in regard to any of the other Railway projects referred to in last year's report.

Chapter IV.—Accidents.

(*For the calendar year ending 31st December 1894.*)

The following statements show the number of accidents to trains and the total number of persons killed or injured on the Railways open for traffic during the calendar year ending 31st December 1894 as compared with similar figures for the year 1893 :—

Number of Persons reported during the 12 months ending 31st December 1894 as killed or injured on the Railways (open lines) by the travelling of trains or the movement of vehicles used exclusively upon the line, distinguishing between Passenger, Railway Servants and other Persons, and classifying as far as practicable the nature and causes of the accidents occasioning death or injury.

Year.	PASSENGERS. From accidents to trains, &c. Killed.	Injured.	From falling between Carriages and Platforms. Killed.	Injured.	Falling on to the Platform, Ballast, &., when getting into or out of Trains. Killed.	Injured.	Whilst crossing the Line at Stations. Killed.	Injured.	By the closing of Carriage Doors. Killed.	Injured.	Falling out of Carriages during the travelling of Trains. Killed.	Injured.	Other Accidents. Killed.	Injured.	Total. Killed.	Injured.	Total Passengers. Killed.	Injured.
1893...	...	2	1	4	2	6	...	1	...	3	10	43	...	3	13	60	13	62
1894...	...	28	1	1	4	4	...	3	...	4	3	41	3	7	11	60	11	88

Year.	SERVANTS. From Accidents to Trains, &c. Killed.	Injured.	During shunting Operations. Killed.	Injured.	Falling off Engines, Vans, Wagons, &c. Killed.	Injured.	Coming in contact with Over-bridges, &c., during the travelling of trains. Killed.	Injured.	Coming in contact while shunting, with Vehicles, &c., standing in adjoining lines. Killed.	Injured.	Getting on or off Trains, Engines, &c. Killed.	Injured.	While loading, unloading or sheeting. Killed.	Injured.	Whilst breaking, spragging or choking wheels. Killed.	Injured.	Whilst working at Cranes or Capstans. Killed.	Injured.	Whilst working on the permanent-way, or in sidings. Killed.	Injured.	Whilst walking along the Line on the way home or to work. Killed.	Injured.
1893...	4	51	4	22	8	25	...	...	...	2	3	13	2	57	...	...	...	2	2	11	2	3
1894...	3	18	6	17	9	25	...	...	...	...	...	6	1	59	...	5	...	1	...	5	1	2

Year.	SERVANTS. Whilst walking, crossing, or standing on the Line. Killed.	Injured.	Whilst passing between vehicles. Killed.	Injured.	Whilst attending to the Machinery of Engines, cleaning them, &c. Killed.	Injured.	Whilst attending to Gates at level-crossings. Killed.	Injured.	Falling or being caught between Vehicles and platforms. Killed.	Injured.	Falling off ladders, Scaffolds, Platforms, &c. Killed.	Injured.	By falling of lamps, Wagon-doors, Timber, weights, &c. Killed.	Injured.	Whilst coupling or uncoupling Wagons. Killed.	Injured.	Miscellaneous. Killed.	Injured.	Total. Killed.	Injured.	Total servants. Killed.	Injured.
1893...	22	22	1	4	...	4	...	...	...	3	...	1	...	9	4	26	4	47	52	251	56	302
1894...	16	13	3	2	...	4	...	2	...	3	...	5	1	27	4	25	1	27	42	198	45	246

Year.	OTHERS. Whilst passing over the Railways at level-crossings. Killed.	Injured.	Trespassers. Killed.	Injured.	Suicides. Killed.	Injured.	Miscellaneous. Killed.	Injured.	Total others. Killed.	Injured.	TOTAL ALL CLASSES. Killed.	Injured.
1893...	2	3	64	33	8	2	2	...	76	38	145	402
1894...	7	...	46	31	10	...	1	1	63	32	119	357

Accidents to Trains, Rolling Stock, Permanent-way, &c., reported during the twelve months ending 31st December 1894, as having occurred on the Railways under the Control of the Government of Bombay, distinguishing the different Classes of Accidents, and the number of Passengers and others, and of Railway servants, killed or injured in each Class of Accidents.

	During 1894.						
	Number of Train Accidents.	Number of Passengers and Others.		Number of Railway Servants.		Total of all Classes.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains or parts of passenger trains	4	...	...	...	...	...	...
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line...	8	...	14	...	4	...	18
3. Collisions between goods trains or parts of goods trains	46	...	...	1	2	1	2
4. Collisions between light engines	6	...	...	...	...	...	...
5. Passenger trains or parts of passenger trains leaving the rails	14	...	...	...	...	...	...
6. Goods trains or parts of goods trains, engines, &c., leaving the rails	40	...	..	...	...	...	...
7. Trains or engines travelling in the wrong direction through points	19	...	...	1	1	1	1
8. Trains running into stations or sidings at too high a speed	18	...	...	...	...	...	...
9. Trains running over cattle on the line ...	719	...	...	...	1	...	1
10. Trains running over obstructions on the line ...	52	...	2	...	...	...	2
11. Trains running through gates at level-crossings.	11	...	...	...	...	...	...
12. The bursting of boilers of engines ...	...	...	...	...	...	...	...
12A. The bursting of tubes, &c., of engines ...	98	...	...	...	...	...	...
13. The failure of machinery, springs, &c., of engines...	226	...	...	...	...	...	...
14. The failure of tyres	9	...	...	...	...	...	...
15. „ „ of wheels	2	...	...	...	...	...	...
16. „ „ of axles	24	...	6	...	5	...	11
17. „ „ of brake apparatus	5	...	...	...	...	...	...
18. „ „ of couplings	94	...	...	...	1	...	1
19. „ „ of tunnels, bridges, viaducts, culverts, &c.	...	...	...	...	...	...	...
20. Broken rails	15	...	...	...	...	...	...
21. The flooding of portions of permanent-way ...	93	...	...	1	3	1	3
22. Slips in cuttings or embankments ...	25	...	...	...	...	...	...
23. Fire in trains	26	...	5	...	...	...	5
24. Fire at stations, or involving injury to bridges or viaducts	5	1	...	...	...	1	...
25. Other accidents	33	...	1	...	2	...	3
Total of all Clases in 1894 ...	1,592	*1	†28	3	19	4	47
Do. in 1893 ...	1,518	...	2	4	51	4	53

	1893.	1894.
Mean mileage worked	5,802·007	5,904·48
Train mileage of all description	24,246,673	24,270,470
Number of Passengers carried	41,255,885	43,815,443
Train miles per accident	15,973	15,246
Passengers killed per million	0·000	0·09
Do. injured „	0·048	1·07

* Was not a passenger.

† Of these two were not passengers.

The following Statement shows the number of train miles run, the number of accidents excluding running over cattle, and the average number of train miles per accident on each railway during the year 1894 :—

	Train miles.	No. of Accidents.	No. of train miles per Accident.
G. I. P. Railway system	10,450,345	360	29,028
B. B. & C. I. Railway, including the Petlad Branch.	2,596,621	136	19,092
Gaikwar's Dabhoi Railway	77,807	10	7,780
Rajputana-Malwa Railway system, including the Gaikwar's Mehsana Railway.	7,212,440	453	15,921
Southern Mahratta Railway system, including the Mysore State Railway, the Kolhapur State Railway, the Bangalore-Hindupur Railway, and the Nanjangud Extension.	3,213,262	575	5,588
Bhavnagar-Gondal-Junagad-Porbandar Railway, including the Jetalsar-Rajkot Branch.	575,834	34	16,936
Morvi Railway	144,161	24	6,006

Accidents.

G. I. P. Railway System—(*Standard Gauge*).

(Includes the Wardha Coal, the Dhond and Manmad and the Berars State Railways.)

On the 12th January, at Tilati Station, the No. 128 Up Passenger Train collided with No. 116 Up Goods Train which was standing at the station. Two passengers and two railway servants were slightly injured. Fourteen wagons were damaged and one wagon derailed; the permanent way was also slightly damaged. The accident was due partly to the Station Master having neglected to carry out the standing orders as to the locking of facing points, and partly to the Muccadum having lowered without authority the up distant signal for the up passenger train. They were both prosecuted and on conviction sentenced to pay a fine of Rs. 100 each, or in default to undergo four months' imprisonment. They were also dismissed from the Company's service.

On the 20th January, the engine and brake van of No. 34 Up Passenger Train were derailed while entering the Victoria Terminus station yard owing to the points No. 6 having been set for No. 6 line instead of No. 8 line, whereby the train was put on two roads which resulted in the derailment. Both the rolling stock and the permanent way were much damaged. The accident was caused by the point locker having committed an error of judgment in altering the points so as to put the No. 34 Up Passenger Train on No. 8 road in accordance with standing order. The Assistant Station Master on duty was also to blame for not ascertaining the order of precedence of the trains and advising the point-locker accordingly. Both the parties at fault have been dealt with.

On the 28th February two open timber trucks loaded with girders and attached to No. 5 Down Goods Train parted at the Thana creek bridge, where the gradient changes from a rising to a falling one and the girders in the trucks fell over, causing damage to the bridge. The accident was due to the breaking of a badly designed wooden head-stock of one of the trucks owing to the jerks brought to bear on it by changes of speed. A railway servant was slightly injured.

On the 28th February, while the No. 259 Down Passenger Train was passing round a curve at mileage $\frac{55}{1.2}$ near Vilad on the Dhond and Manmad Line, the leading wheels of its engine were derailed, and the engine in this condition travelled a distance of about 530 yards before it was pulled up. The derailment was probably due to the flange of the leading tyre striking the fish plate, thus causing it to mount the rail and drop off after running on the top some six feet.

On the 28th July the No. 153 Down Passenger Train collided with No. 120 Up Goods Train at Vadgaon and the leading wheels of the engine of the goods train were derailed. The accident was owing to the Driver of the Up Goods train

having left Talegaon without line clear ticket. One railway servant and eleven passengers were injured. The rolling stock was considerably damaged and the permanent way slightly. Driver Fox of the goods train was prosecuted and sentenced to six months' simple imprisonment.

B. B. AND C. I. RAILWAY—(*Standard Gauge*).

(Includes the Gaekwar's Petlad and the Godhra-Rutlam Railways.)

On the 23rd February, at Dahanu Road, while the engine and 18 wagons of No. 12 Up "Pick up" Goods Train standing on the main line were on the point of being backed to unhook the wagons and to attach a wagon which was standing on the goods siding, they were run into by No. 7 Down Mixed, and seven wagons and the engines of both trains were greatly damaged. The accident was due to the Driver of the down train having passed the signals which were against him.

On the 9th October a buffalo was run over at Charoda Station by the engine of No. 7 Down Mixed Train, resulting in the derailment of a wagon. One railway servant was slightly injured.

RAJPUTANA-MALWA RAILWAY SYSTEM—(*Metre Gauge*).

(Includes the Palanpur-Deesa and the Gaekwar's Mehsana Railways.)

On the 9th February, at Bhandu, No. 28 Down Goods Train collided with No. 11 Up Local Mixed Train standing on the platform line, and the engines of both trains were damaged. The accident was due to the points No. 1 not being locked for the 2nd line, and being left open for the station line where the up local train was standing. Both the Assistant Station Master and the pointsman to blame were prosecuted; the former was acquitted and the latter was sentenced to two months' rigorous imprisonment.

On the 25th September the No. 5 Up Through Mixed Train collided with No. 90 Down Goods Train at Fatehgarh owing to the pointsman having erroneously lowered the distant signal and opened the locked points of the No. 2 line where the down goods train was waiting for the mixed train to cross. One passenger and a railway servant were slightly injured.

On the 10th October, the No. 1 Up Mail Train while entering the Ladpura Station yard collided with No. 2 Down Mail which was standing on the station line owing to the Station Master having allowed the signals to be lowered for the up mail. Both the engines were damaged.

On the 15th December, No. 83 Up Goods Train entered the Jaitu Station at too high speed regardless of signals and collided with the wagons of No. 84 Down Goods Train which had blocked the line, as there was no room in the goods sidings, resulting in two wagons being entirely smashed and three capsized The engine was derailed and damaged.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre Gauge*).

(Includes the Mysore, the Kolhápur, the Guntakal-Bangalore and the Nanjangud Extension Railways.)

On the 22nd January, a ballast train collided at Mangalagiri with some wagons standing on the dead-end siding. A ballast cooly was killed. The accident was due to the train having been wrongly diverted to the siding. The Station Master and the porter by whom the points were held were prosecuted. The former was sentenced to pay a fine of Rs. 50, but the latter was acquitted.

On the 7th February, while the No. 48 Down Mixed Train was entering the Phursangi Station, seven loaded wagons attached to the train were derailed and damaged owing to the Driver having entered the station at excessive speed.

On the 15th March, the No. 62 Down Mixed Train was derailed at mile age $\frac{40}{8}$ near Karajgi owing to the axle of a covered goods wagon having broken. The breakage was due to a flaw in the axle extending to within $\frac{1}{4}$ inch of the centre of the axle. Six passengers and four railway servants were injured.

On the 14th July, the No. 38 Down Mixed Train was derailed at mileage 260¼, between Alandi and Rajewadi, owing to the road spreading through the old Karri wood sleepers having been sodden with the continuous heavy rain of the previous days and yielding under the side pressure of the engine on the lower rail, as the full cant for the curve was still maintained at the tangent point. The rolling stock and permanent way were much damaged.

On the 3rd August, the engine tender and seven wagons of No. 82 Down Mixed Train were derailed at mileage 21/4 between Mallapur and Alur owing to the removal of the fish bolts of the leading joints of one pair of rails by some unknown persons. The rolling stock and permanent way were much damaged.

On the 6th August, a covered goods wagon of No. 16 Down Mixed Train was derailed at mileage 113/13, between Gadag and Harlapur, and dragged as far as mile 115/2 owing to the breakage of the trailing axle of the wagon through a flaw in the metal, and the train parted in consequence of the hind buffer bar of the wagon having broken.

On the 30th August, the No. 28 Down Goods Train on crossing the bridge at mile 292/5, between Rungapuram and Betamcherla, was stopped owing to the bank having been scoured away behind the east abutment. The engine being thrown back against the abutment knocked it down and the engine, tender and brake dropped into the nulla and the first Fireman was killed and the Driver and 2nd Guard were injured. The engine and the rolling stock were damaged to the extent of Rs. 7,000. The watchman to blame was prosecuted and was convicted and sentenced to undergo 4 months' rigorous imprisonment.

On the 15th October, six 3rd class carriages of No. 35 Up Mixed Train were derailed at mile 261½, between Alandi and Phursangi, owing to the gauge opening out, which may have been caused by alternative side motion of the engine which would be working hard on an up grade. The line was found to be slack before it was repaired and one rail was slightly tilted by the derailment. The slackness may have been caused also by the heavy rain of the previous night.

On the 16th October the engine, tender and 3 wagons of No. 71 Up Mixed Train were derailed at points No. 2 in Golehalli Station yard owing to the irregular working of the points which had not been locked in accordance with rules. The rolling stock and permanent way were somewhat damaged.

On the 9th November, a covered goods wagon and three 3rd class carriages of No. 16 Down Mixed Train were derailed at mile 80/21, Mysore Section, between Birur and Kadur, owing to the breakage of the axle of the trailing wheels of the wagon through an old flaw in the metal, $\frac{1}{8}$th inch within the boss of the wheel. A railway servant was slightly injured and the rolling stock was damaged.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

(Including the Jetalsar-Rajkot Railway.)

MORVI RAILWAY—(2′ 6″ *Gauge*).

Nil.

Flood Damages.

(*For the calendar year ending 31st December 1894.*)

G. I. P. RAILWAY SYSTEM—(*Standard Gauge*).

(Includes the Wardha Coal, the Dhond and Manmad and the Berars State Railways.)

On the 19th July the nullah, which crosses the Wardha Coal Railway at mile 31/66, being flooded overflowed and some ballast of the main line for 10 rail lengths in the Nagri Station yard was washed away, rendering it unsafe for trains.

On the 20th July at mile 76½, on the Thal Ghat, the bank, which is 18 feet high, sank and slipped for a distance of about 100 feet, due to the very heavy rainfall. The rails at this point, for a distance of about 500 or 600 feet, shifted some 6 to 8 inches out of their gauge. The road was slewed back on the 26th. The Up line between Kasara and the Reversing Station had sunk considerably for a distance of about 150 feet, and the bank between Nos. 1 and 2 catch sidings slipped, and although the quantity of earth-work that fell was not very great, it was sufficient to block the line.

An extensive slip of a whole cutting occurred at mile 82½ and the girder bridge at mile 83/33 was flooded.

The Tunnel No. 2 at mile 77 between Kasara and the Reversing Station was blocked owing to a very heavy slip in the cutting about 300 feet from the south end of the tunnel. Another slip occurred at mile 77¼; the earth-work over the south end of Tunnel No. 3 fell from above, completely blocking the mouth of the tunnel. Both ends of Tunnel No. 4 were blocked by large slips of earth and rock. A slip occurred also at mile 83.

The three 30-feet girder bridge over the Mussak river at mile 327 (North-East Line) between Chandni and Mandva was partially washed away, both the piers and the girders of the Up road being swept away, leaving the Down line girders suspended and held together by the rails and longitudinal sleepers. All traffic over the bridge was interrupted till the 8th August when a diversion was put in.

At Vasind, at mile 48/13, a 3-30 feet girder bridge was 5 feet under water and the line from mileage 48/2 to 48/16 was flooded by the back-water formed by the Bhatsa river which rose to a great height.

At mile 70/15, near Khardi, both roads in the low bank were washed away for about 21 rail lengths, and at mile 345, North-East Line, near Bagmar, a wing wall of a bridge was washed away.

On the 21st July at the Mumbra bridge, at mile 21 near Thana, the flood water rose to the girders and all trains were stopped from going over it. At Biva, mile 27, the slope of the bank was scoured in places and the Up station signals consequently got slightly out of order. The bank between miles 87 and 88 between Igatpuri and Ghoti was washed away and the road was under water for about 30 feet; single line working had to be resorted to, which was discontinued on the 24th. At mile 100, near Asvali, the bank subsided slightly. Between Talegaon and Salevadi the wing wall of a 2-30 feet arched bridge at mile 103½ was partially washed away. The damage was not, however, serious and was at once temporarily repaired with pitching and the bridge made safe.

On the 5th August owing to heavy rain on the Bhore Ghat about 40 tons of moorum and six large pieces of rock fell from a height of about 30 feet above rail level at mile 73½ near Thakurvadi, blocking the Down line partially and the Up line completely; both lines were cleared in about 5 hours.

On the 20th August one side of the bridge at mileage 71/8 between Khardi and Kasara was washed away. The Up road was blocked and the traffic interrupted till the 24th.

On the 29th September a very heavy slip of rock and earth occurred at mile 72 chains 66 (South-East Line) between Palasdhari and Khandala. The debris all came down the water-course which passes under the six 29′ 6″ stone arches, most of it lodged on the ledge of rocks some distance up the hill side, but one piece of rock, about 4 feet in diameter, went through the second arch opening of the bridge, striking the upper edge of the 2nd pier just below the springers, the pier being slightly damaged. Another stone, about 3 feet in diameter, rolled up against the ballast wall a few feet on the Bombay side of the bridge, and 4 other stones, 4 to 5 feet in length by 2 feet, stopped the nullah course from 10 to 20 feet above the rails. Fortunately nothing fell on the line and there was no obstruction or damage to the line.

Bombay Baroda and Central India Railway—(*Standard Gauge*).

(Includes the Gaekwar's Petlad and the Godhra-Rutlam Railways.)

On the 13th July, owing to heavy rainfall, the water ran over the line in cutting at mile 43 on the Godhra-Rutlam Section, the side drains were filled and in one or two places in the cutting a little ballast was washed away.

On the 21st July the height of the flood water in the Syri river, at mile $\frac{285}{7-3}$, between Mehmadabad and Nadiad, was 38 feet, and 20 feet in the Mulkana. The Syri bridge was made safe on the 23rd, and trains were run as usual on the 24th. The line was also washed away in three places between Billimora and Amalsad; the wash-away in two places extended to a distance of 30 feet on the Amalsad weir near mileage $\frac{137}{8}$. The floods in the Tapti river between Amroli and Surat rose to a height of 38 feet, when trains were stopped from running over the bridge; on the 22nd it rose to 41 feet. The Ambica, which is crossed by the railway line near Amalsad, was in heavy flood at the weir, and the line was washed away for a length of 2,500 feet, and the face of the pitching was damaged. The 20 feet girders of bridge No. 369 were shifted 3 feet, and some of the pitching of bridge No. 370 was washed away. The line was repaired and opened for traffic on the 21st idem.

On the 22nd July the embankment between Lakhtar and Wadhwan (mileage 380 to 386) was washed away in several places. At mile 349 near Viramgam, 25 feet of masonry work of Culvert No. 87 was washed away and 500 feet of bank washed out. The bank at 4 places at mile $\frac{380}{3-5}$ near Bapudra was washed away for a length of 280 feet, and the retaining wall at mile $\frac{386}{7-9}$ fell and the bank was scoured out. The weir near Barejadi was rendered unsafe for trains; passengers and mails could not be transhipped. On the Mahi bridge near Vasad the flood had risen to 51 feet and trains were not allowed to pass over. Traffic was resumed on the 23rd and the repairs completed on the 24th idem.

On the 23rd 600 feet of the line at mile $\frac{4}{5-8}$ between Viramgam and Jhund (Patri Branch) was washed away by heavy floods.

The up stream wing wall of the south abutment of the Dhadhar bridge near Itola Station was entirely washed away so that trains had to be stopped. One span of 20 feet girder of the bridge had fallen forward, the front portion of it was touching the piles of the next column, but had apparently not injured them. On the 24th a temporary bridge was put up.

Some miles of ballast was washed away between Jakhvada and Viramgam, and at mile 346½ a large breach was made in the bank, the gap measuring 260 feet in length, and this had to be spanned with timbers and girders on cribs. There were other smaller gaps on either side of the bank, measuring altogether 2,460 feet, between Charodi and Jakhvada; the ballast was washed away in several places, especially at mile 335, leaving impassable gaps, measuring altogether 640 feet. Bridge No. 105 and culvert No. 104 were rendered unsafe.

On the 23rd July a special train with mails and passengers could not go beyond Mehmadabad owing to the weir near Barejadi being impassable and to a portion of the bank having been washed away and there being a gap behind the abutment of the Syri bridge.

Owing to heavy rain and floods on the 12th September on the Dakor branch, trains could not pass any low level bridge between Sevalia and Anand. The road in the Mahi bridge siding was covered with earth and stones which had fallen from the top of the cutting. The line near Dakor, mile 17, was washed away on both sides of the culvert No. 38 so that trains could not pass; 18 inches of water was on the line in Dakor Station yard and 2 feet of water in the quarters; this shut off Dakor on both sides. Ballast and earth near culvert No. 38 was also washed away for some distance, and the country was flooded on both sides of the line as far as could be seen. The line near Culvert No. 42 was also washed away.

Rajputana-Malwa Railway—(*Metre Gauge*).

On the 7th July, at Bhatinda Station, the heavy rain caused the water to flow over the rails, and the ballast was washed away.

On the 14th the line at mile $\frac{238}{8-14}$, between Ferozpore and Golewala, was breached owing to the accumulation of water on the off side of the Ludhiana road through heavy rain and overflowing of the inundation canal. The line was seriously breached for 4 rail lengths, and the rails were suspended in the air. Through communication was consequently stopped till the 26th July, and mails and passengers had to be transhipped.

On the 24th July the line had again sunk and was breached. The engine and front brake-van of an empty mail train, which was going to the breach at mile 238/8 for transhipment, were derailed at mile 238-14 near Ferozpore. The breach was repaired and through communication resumed on the 26th idem.

On the 20th July the permanent way and ballast and a portion of the bank from mile 369/12 to 369/17, between Nimarkhera and Attar, were washed away by floods in the Bankura nullah, and through traffic was interrupted for about 36 hours. The second line or siding in the Ajunti station yard and the bank were scoured out.

On the 5th September the flood water on both sides of the line from mile 546 to 547, between Jagudan and Dangarwa, topped the bank, and at other places was half way between top of bank and rail level; the bank between mileage $\frac{545}{5-10}$ and $\frac{546}{1\cdot2}$ near Jagudan had sunk in places. The line was packed and lifted and put in proper order on the 7th.

PALANPUR-DEESA RAILWAY—(*Metre Gauge*).

On the 9th July the line was breached in several places between Palanpur and Deesa, the ballast being washed away and small banks near the 8th mile breached. The booking of coaching traffic was in consequence suspended till the 10th when the breaches were repaired and the line re-opened for traffic.

On the 23rd July a severe storm passed over the line between Palanpur and Deesa, accompanied by heavy rain, and the banks from mileage 11/8 to 15/15 were badly damaged in several places, having subsided from 1″ to 6″.

GAEKWAR'S MEHSANA RAILWAY—(*Metre Gauge*).

Owing to heavy rain on the 20th, 21st and 22nd July there was a heavy rush of water across the rails and the ballast was washed away between Lynch and Viramgam and the line was seriously damaged in several places. A considerable quantity of flood water passed over the country, increasing the damage still further at every breach. Bunds of sand bags were made and thus the breaches were protected from further damage. The No. 57 Up Mixed Train was locked in at the Katosan Road station from the 22nd to the 27th July.

On the 6th September the line at miles 5 to 7 between Lynch and Jhotan was breached for 10 feet and at mileage 5/14 to 5/18 the line was under water, and from mile 31 to 37 between Bhankoda and Viramgam the line was rendered impassable for trains by the flood water.

GAEKWAR'S DABHOI RAILWAY—(*2′ 6″ Gauge*).

On the 13th July the bank at Bhilupur between mileages 12 and 13½ was heavily breached by heavy flood. At the Bhadhur bridge the flood waters rose to a foot above the rails. On the Jambora weir between Kelanpur and Bhilupur the flood waters rose to a height of 2′ 9″ over the rails, washing away the ballast and displacing the permanent way for a length of about 700 feet. On the 20th July the line at mileage 26 between Dabhoi and Bahadarpur was washed out for a length of about 500 feet, and at mile 33 between Bahadarpur and Bodeli a small breach was made by the flood. On the 21st a heavier flood than on the 13th came down topping and breaching the newly made bank and causing a breach nearly 5,000 feet long and scouring to a depth of 6 feet behind the abutments of Culvert No. 33 (two spans of 20 feet girders) at mile 13½.

On the 13th September the line between Kelanpur and Bhilupur and the Jambora bridge near Kelanpur were flooded by heavy rain for a length of about 1,000 feet, but only 700 feet of ballast was washed out. The road was repaired on the 14th and trains commenced to run on the morning of the 15th.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre Gauge*).

(Includes the Mysore, the Kolhapur, the Guntakal-Bangalore and the Nanjangud Extension Railways.)

On the 5th June, at mile 33/14, Mysore Section, the No. 61 Up Train was brought to a stand owing to the line having been washed away for about a rail's length by heavy rain, the 2 feet culvert being insufficient to pass the flood water which topped the low bank and washed away the ballast. The traffic was somewhat delayed in consequence.

At mile 66/5, Mysore Section near Ajjampur, all the wheels of covered goods wagon No. 2894 of No. 73 Up Goods Train were derailed, and between the siding and the top points all the wheels of covered goods wagons Nos. 7530, 675 and 7604 left the rails owing to the sinking of the line caused by heavy rain. The rolling stock and permanent way were slightly damaged and traffic delayed in consequence.

On the 6th June the rainfall being abnormal, the ballast under two pairs of rails close to a 7′ 6″ rail girder opening at mileage $\frac{116}{6}$, Poona Branch, near Karad, was washed away, and the rush of the water was so heavy that the rails were left bare and hanging. Owing to the breaching of the line 5 covered goods wagons of No. 36 Down Mixed Train were derailed at mileage $\frac{116}{9}$ and dragged on to mile $\frac{116}{13}$, both rolling stock and permanent way being much damaged.

On the 15th October, owing to heavy rain the ballast was washed away for a length of 12 feet at mile $\frac{102}{10\frac{1}{2}}$ and scoured from under the sleepers as far as mile 102/16 between Bangalore and Arsikeri; consequently 4 wagons and the tender of the engine of No. 66 Down Mixed Train were damaged by jolting over slacks and 2 rails were bent. The damage was repaired and traffic resumed the next day.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

(Includes the Jetalsar-Rajkot Railway.)

Owing to the heavy rain that fell continually from the 9th to the 21st June 1894, the line was flooded and more or less damaged at several places as detailed below:—

Jetalsar-Veraval Section.

The Kalwa diversion was washed away, but the road across the bridge having been rapidly linked in, the trains crossed it with slight delay. The Ujat river began to rise on the 10th, on the 11th the diversion was washed away, and the mails and passengers were transhipped across the river by means of boats and rafts; from the 13th to the 16th the river was in very high flood, and after the 16th it began to fall; on the 18th it subsided partially. The booking of all traffic beyond Shapur from the Junagad side and beyond Lushola from the Veraval side was stopped from the 12th, and resumed for passengers from the 19th and for goods from the 21st June 1894. On the 15th a slight break occurred at mile 4/11, which was speedily repaired on the same day.

Jetalsar-Porbandar Section.

On the 12th June the line at mileage 151 to 152 was damaged at some places and repaired at once. On the 15th the new banks at the Raidhra and Bhadar bridge approaches and in the Supedi station yard settled considerably, and for a day or two trains were slightly delayed.

MORVI RAILWAY—(2′ 6″ *Gauge*).

Owing to the heavy rain that fell on the 14th and 15th June 1894, the main and branch lines were damaged as detailed below:—

At mile 25 the bank was washed out behind a 6-feet culvert, and from mile 25 to 28 the ballast was washed away and the earthwork scoured more or less in places. At mile 40 the ballast was washed away and the bank scoured alike; from mile 41 to 42 the bank was breached for about 60 feet.

At mile 48 there was some slight scouring out of the earthwork and ballast, and two breaches were made, one of 20 feet and the other of 60 feet, at mile 52 ; the line was scoured and ballast disturbed for about 1,200 feet, and 800 feet of bank (4 feet high) was washed away. The traffic was in consequence suspended from the 15th to the 17th June.

On the Wankaner-Rajkot branch some damage occurred in the cutting at mile 57 where some mud was washed on to the line and deposited on the rails, and for about 15 feet behind a 6-feet culvert the line was breached. At mile 59 the bank behind a 10-feet culvert was washed away for a length of about 50 feet.

At mile 60 one pier (the first from the abutment on the east side) of the Asoi bridge, consisting of 7 spans of 40 feet, was clean washed away and from Asoi to Rajkot the ballast and earthwork was scoured in several places. The approach bank of the Demi bridge (7 spans of 30 feet arches) sank 2 or 3 feet for a length of over 100 feet.

Chapter V.—Stores and Rolling Stock.

(For the calendar year ending 31st December 1894.)

GREAT INDIAN PENINSULA RAILWAY—*(Standard Gauge.)*

The stores balance on 31st December 1894 amounted to Rs. 55,52,661, inclusive of a sum of Rs. 93,261, representing value of stores in transit. The following are the principal items making up that balance :—

	Rs.
Permanent-way materials...	7,65,300
Station materials	1,36,578
Bridgework and fittings	86,699
Fuel	9,60,508
Tools	62,873
Stationery	87,829
Engines, locomotive and stationery, and sundry gear ...	8,24,499
Rolling stock	7,87,758
Metals	9,84,829
Oil, tallow, waste, varnishes, coal-tar, pitch and rosin ...	57,555
Timber	1,06,580
Miscellaneous items	5,98,392
	54,59,400
Stores in transit	93,261
Grand Total ...	55,52,661

The value of consignments received from England during the year amounted to Rs. 35,59,247, while stores to the value of Rs. 47,56,968 were purchased locally. The issues of the year were :—

	Rs.
To Construction account	4,09,043
To Revenue account	62,21,303
Sales, &c.	6,41,368
	72,71,714

resulting in an increase to the stores balance during the year of Rs. 10,44,501. This is principally due to the depletion of coal stocks in 1893 and to their replacement in 1894, also to additions under the heads "Engines and Rolling Stock for renewals" and to a considerable extent to the arrival late in the year of the gas apparatus for lighting carriages ; these latter are, however, being withdrawn as fast as work can be taken in hand. Permanent-way materials were reduced during the year by nearly two lakhs.

The value of scrap material on the books at the close of 1894 amounted to Rs. 5,33,928, and of surplus stores to Rs. 1,98,592; but it is satisfactory to note that tenders to the extent of nearly five lakhs have recently been accepted for the sale of those materials.

The state of the rolling stock of the line on the last day of the year is shown in the following columns :—

	Total Stock.	Undergoing or awaiting repair and renewal.	In actual running order.
Locomotives—			
Passenger, ordinary	116	26	90
Goods	373	81	292
Incline, special	74	17	57
Tank	...	...	...
Local traffic, shunting and ballast	42	9	33
Total, Locomotives ...	605	133	472
Coaching Vehicles—			
First class, ordinary	88	7	81
Composite, First and Second, ordinary ...	73	3	70
Do. Second and Third do. ...	2	...	2
Second class, ordinary	150	14	136
Do. with postal accommodation, ordinary ...	22	2	20
Third class without brakes, ordinary	526	55	471
Do. do. ambulance ...	29	5	24
Third Class and brake vans	81	7	74
Compound Third class incline vans	1	...	1
Postal vans	6	...	6
Prison vans	6	...	6
Carriage trucks	50	1	49
Horse boxes	93	12	81
Luggage vans	80	...	80
Brake vans	508	48	460
Total, Coaching Vehicles ...	1,715	154	1,561
Goods vehicles—			
Covered goods wagons, ordinary, iron ...	641	25	616
Do. do. wooden	3,824	313	3,511
High-sided wagons, bogie, iron	50	4	46
Do. do. ordinary, wooden ...	383	35	348
Low-sided, do. do. iron	907	43	864
Do. do. do. wooden ...	1,822	162	1,660
Pilot wagons	25	...	25
Powder vans	18	2	16
Timber trucks, iron	11	...	11
Do. do. wooden	180	26	154
Travelling water tanks	12	...	12
Travelling cranes	47	1	46
Total, Goods Vehicles ...	7,920	611	7,309

The following table shows the number of locomotives and vehicles repaired and renewed during the year :—

		First-half.	Second-half.	Total.
Locomotives ...	Repaired ...	174	175	349
	Renewed ...	8	7	15
Coaching vehicles ...	Repaired ...	1,025	958	1,983
	Renewed ...	40	41	81
Goods vehicles ...	Repaired ...	4,866	4,400	9,266
	Renewed ...	110	110	220

Of the total number of vehicles on the line the following are adapted to military purposes :—

Fitted for ambulance purposes ...	29 Third class carriages.
Fitted with hooks or racks for rifles ...	54 Second do. do. 66 Third do. do.
Horse boxes capable of carrying 3 horses each	93
Covered goods wagons adapted for carriage of 8 horses or 10 ponies each ...	1,506 wooden wagons.
Open goods wagons suitable for the carriage of artillery guns	2,882 medium or high-sided wagons. 280 ballast or low-sided wagons.

The rolling stock on the line fitted with brakes stood thus at the close of the year :—

	Vacuum Automatic.	Single Vacuum.	Steam.
Locomotives	102	189	27
Vehicles	326	...	...

The whole of the coaching stock is fitted with screw couplings at both ends ; goods vehicles are fitted with those couplings at one end only, and 1,184 vehicles were so fitted during 1894 ; the total goods vehicles fitted to end of that year being 3,234.

In addition to the rolling stock of the line detailed in the foregoing paragraph, the Company possesses a $\frac{7}{16}$ths share in the undermentioned East Indian and G. I. P. Railways joint stock employed in the through service between Calcutta and Bombay :—

First Class carriages	8
Second do.	8
Luggage vans	8
Mail vans	12
Total ...	36

DHOND AND MANMAD STATE RAILWAY—(*Standard Gauge*).

On 31st December 1894, the stores balance stood at Rs. 879 or Rs. 34,151 less than the balance at end of 1893, as shown below :—

	Rs.
Balance on 31st December 1894	879
Do. do. 1893	35,030
Decrease in 1894 ...	34,151

The transactions for the year 1894 were as follows :—

	Rs.
Receipts	38,236
Issues	72,387
Decrease as above ...	34,151

The receipts during the year represent the cost of fencing material received from England.

THE BERARS STATE RAILWAYS—(*Standard Gauge*).

On 31st December 1894 the balances were as under :—

	Rs.
Khamgaon State Railway	482
Amraoti State Railway	7,905

The issues during the year were on the :—

	Rs.
Khamgaon State Railway	1,564
Amraoti State Railway	447

These stores consist entirely of permanent-way materials which are in the custody of the G. I. P. Railway Company, who are authorized to use them when

required. The value of stores thus used for their own purposes is recovered from the Company and credited to the Capital Accounts of the Railways.

WARDHA COAL STATE RAILWAY—(*Standard Gauge*).

There is no stores account on this line.

B. B. & C. I. RAILWAY—(*Standard Gauge*).

The stores accounts closed on 31st December 1894 with a balance of Rs. 28,82,427, or Rs. 3,35,433 more than the balance at close of 1893, as shown below :—

	Rs.
Balance on 31st December 1893	25,46,994
Do. do. 1894	28,82,427
Increase in 1894 ...	3,35,433

The transactions of the year 1894 were as follows :—

	Rs.	Rs.
Receipts—		
English stores	15,05,928	
Indian stores	20,94,810	
		36,00,738
Issues—		
On Capital account	7,60,210	
„ Revenue account	19,88,936	
„ Sales, &c.	5,16,159	
		32,65,305
Net increase as above ...		3,35,433

The increase was principally due to Permanent-way material received during the year for doubling the line, the heavy purchases of coal and large shipments consisting of bridge-work, boilers and roofing which were in transit on 31st December 1894.

The detail of balance on hand on 31st December 1893 was as under :—

	Rs.
Engineering stores	11,72,265
Locomotive stores	14,96,416
Traffic stores	68,572
General stores	12,880
Stores in transit	1,32,294
Total ...	28,82,427

The rolling stock on 31st December 1894 consisted of the following :—

	No.	
Engines—		
Tank	15	
Passenger	15	
Goods and Passenger	25	
Goods	88	
		143
Coaching Vehicles—		
First class...	25	
Composite	27	
Second class	41	
Intermediate	25	
Third class	283	
Mail and brake vans	44	
Carriage trucks	4	
Horse boxes	15	
		464
Goods Vehicles—		
Wagons of all kinds	3,985	
Powder vans	6	
Goods brake vans	66	
Accident cranes	3	
		4,060

The following are the principal additions and alterations, &c., during the year :—

Additions—

6 New Engines were added to the stock on capital account for Godhra-Rutlam Railway.

5 Do. do. do. on renewal account.

100	Covered wagons, iron ...	Constructed and added to the stock.
124	Do. do. steel ...	
125	Open do. Military type...	
1	Third class ambulance carriage ...	
9	Do. Bogies	
4	Do. Passenger brake vans...	

Reduction—

2 Passenger and Goods Engines were condemned and taken off stock.

1 Postal van sold.

Alterations—

4 Six-wheel First class carriages altered to composite.

1 Saloon carrriage was renewed as composite bogie.

1 Third class Postal van altered to intermediate class Postal van.

GAEKWAR'S DABHOI RAILWAY.—(2′ 6″ *Gauge*).

The stores account was closed on 31st December 1894 with a balance of Rs. 18,048, or Rs. 765 more than the balance at close of 1893, as under :—

	Rs.
Balance on 31st December 1894	... 18,048
Do. do. 1893	... 17,283
Net increase ...	765

The balance on 31st December 1894 represents the value of—

	Rs.
Bolts, nuts and washers	152
Ferrules, steel	4,963
Fish plates	85
Gauges, Permanent-way	20
Rails, steel	1,188
Signals, &c.	114
Springs, &c.	2,148
Switches, single	134
Tubes, brass	2,492
Tarpaulins	88
Washers, iron	121
Wheels and axles...	297
Tyres, steel	5,810
Spikes	436
	18,048

GAEKWAR'S PETLAD RAILWAY—(*Standard Gauge*).

The stores balance on 31st December 1894 stood at Rs. 11,769, and consisted of the following :—

	Rs.
Bolts, nuts and washers	248
Fish plates	194
Rails, steel	3,881
Spikes	87
Sleepers, steel	6,326
Cranes, water, incomplete	600
Do. do. odd parts of	235
Keys, steel	198
	11,769

RAJPUTANA-MALWA RAILWAY SYSTEM—(*Metre Gauge*).

The stores account shows an increase of Rs. 1,36,448 during the year, as follows :—

	Rs.
Balance on 31st December 1894	45,80,419
Do. do. 1893	44,43,971
Increase ...	1,36,448

The increase in the stores balance during the year 1894 amounting to Rs. 1,36,448 was due to the return from the line to stores of 40¼-lbs. rails and to the receipt from England of axles and axle-boxes required for renewal purposes, and of underframes for the construction of new rolling stock.

There was a difference between the general books and the general stores priced ledgers at 31st December 1894 of Rs. 1,14,504-14-6, thus :—

	Rs.	a.	p.
Balance as per general books	27,51,766	1	5
„ „ detailed store ledgers ...	26,37,261	2	11
Difference ...	1,14,504	14	6

The subjoined debtor and creditor account fully explains the items contributing to the difference :—

Dr. *Cr.*

Particulars.	Rs.	a.	p.	Particulars.	Rs.	a.	p.
Gain on stores sold ...	6,357	1	6	Rebate on coal	25,253	3	0
Minor differences ...	394	4	0	Stores remaining unused in the hands of Permanent Way Inspectors	41,922	1	0
				Stores paid for, but which had not reached their destination	85,264	9	0
				Value of stores unadjusted with departments ...	31,687	11	0
Unadjusted differences ...	1,14,504	14	6	Minor differences ...	504	2	0
	1,21,256	4	0		1,21,256	4	0

These differences will have disappeared by 30th June 1895.

There was also a difference of Rs. 15,959-5-1 between the detailed stationery and forms account and the balance in the general books as follows :—

	Rs.	a.	p.
Balance as per detailed accounts ...	1,17,875	4	0
„ „ general books	1,01,915	14	11
	15,959	5	1

The adjustment of this difference is in progress and will be completed during the half-year ending 30th June 1895.

The balances of Locomotive Stores compare as follows :—

	Rs.	a.	p.
As per detailed ledgers	17,11,393	1	1
„ as per general books	17,22,297	10	4
	10,904	9	3

Of this sum Rs. 10,798-4-0 represents the difference between approximate and actual values accounted for in the account current for December 1894 and posted in the ledgers in January 1895, and the balance of Rs. 106-5-3 an actual difference which is being traced.

The balance of stock-adjusting account has been reduced from Rs. 23,746 to Rs. 21,406.

The rolling stock on 21st December 1894 was as under :—

Engines—		
Mail, special...	34	
Passenger, ordinary	109	
Goods	265	
Local Traffic, Shunting and Ballast	32	
		440
Coaching vehicles—		
Saloon and first class carriages	130	
Composite	46	
Second class carriages	95	
Inspection carriages	11	
Composite second and third class carriages ...	7	
Intermediate carriages	50	
Composite intermediate and third class ...	25	
Intermediate and Post Office combined ...	8	
Third class and do.	8	
Third class carriages	745	
Brake-vans	266	
Horse boxes	82	
Post Office, Prison and luggage vans ...	48	
Miscellaneous	40	
		1,561
Goods Vehicles—		
Goods vans of all kinds...	7,143	
Accident, powder and store vans	51	
Travelling cranes	26	
		7,220

Sixteen additional F. Class Engines have been built and placed on the line, while the following reductions have been made in the number of coaching and goods vehicles :—

Coaching vehicles—	
One bogie composite first and second class carriage built in lieu of two ordinary, *viz*, one composite first and second and one second class carriage	1
Twenty-one bogie third class carriages built in lieu of 42 ordinary third class carriages condemned	21
	22
Goods vehicles—	
50 Steel covered goods wagons bogie 26′ built in lieu of the following stock condemned :—80 covered goods wagons 14′ wooden, 14 low-side wagons wooden, 6 high-sided wagons...	50

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre Gauge.*)

The stores transactions for the year were as follows:—

	Rs.
Balance on 1st January 1894	17,83,113
Receipts during the year	20,76,872
Total ...	38,59,985
Issues during the year	19,17,842
Balance on 31st December 1894	19,42,143
Net result an increase of Rupees ...	1,59,030

The net increase of the value of stores in stock at the close of the year is largely due to heavy recoupments during the later months of the year of country coal and firewood for consumption during the current year and to a large number of steel sleepers received from England at the close of the year for special renewals also awaiting issue in the current year.

The annual supplies of metals, paints, leather goods, &c., moreover, were in like manner received too late in the year for entire consumption during 1894.

The additions to stock were made up of:—

	Rs.
Supplies from England	5,96,337
Indian purchases	12,87,628
Return from works	53,545
Manufacture in Locomotive Shops	1,39,362
Total ...	20,76,872

The issues were:—

	Rs.
On Capital account	4,17,634
„ Revenue account	14,72,233
„ Sale account	27,975
Total ...	19,17,842

The description of stores obtained on indents from England is detailed below:—

Boiler plates.	Copper plates.
Spare parts of boilers.	Tools of sorts.
Tube plates.	Block Instruments (Winter's patent).
Steel tyres.	Lightning dischargers.
Metals.	Switches and crossings.
Lathes and machines.	Gum metal bearings.
Screw Jacks traversing.	Steel Crank arms.
Blank Card tickets.	Smithy Coal and Coke.
Paints and Varnishes.	Fencing material.
Steel Sleepers.	Weighing Machines.

Brakes.

No automatic vacuum brakes have been fitted to stock running on this line but the following have been fitted with Westinghouse brakes:—

Locomotives	3
Coaching vehicles	19

Couplings.

Jones' system of buffers and couplings is now generally in use on coaching stock, and goods vehicles are being fitted.

Lighting of Railway carriages on Pintsch's gas system.

Lighting carriages with Pintsch's gas has not yet been introduced on this line, but the introduction of the system has been estimated for.

No important alterations have been made to Rolling Stock, except that 200 low sided wagons were converted during the year for the special purpose of carrying full loads of coal.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

(Includes the Jetalsar-Rajkot Railway).

The statement below shows the transactions of the Stores Department :—

	Rs. a. p.	Rs. a. p.
Balance on 1st January 1894	.....	3,06,165 15 10
Receipts during 1894—		
Purchases in India	5,32,182 6 5	
Do. in England	20,179 4 10	
		5,52,361 11 3
Total ...	.....	8,58,527 11 1
Issues during 1894—		
Capital	4,34,054 15 5	
Revenue	1,43,744 9 7	
Sales	63,779 1 3	
Total Issues ...	.....	6,41,578 10 3
Balance on 31st December 1894	.....	2,16,949 0 10

Out of Rs. 63,779-1-3, Rs. 47,154-0-3 is on account of coal sold to Morvi Railway, and Rs. 14,402-6-9 on account of permanent way materials sold to the Aji Bridge, and the remaining Rs. 2,222-10-3 is for stores sold to the public.

Detail of balance on hand on 31st December 1894 :—

	Rs. a. p.
General Stores	1,18,331 8 9
Locomotive Stores	83,106 13 7
Forms and Stationery	15,510 10 6
Total ...	2,16,949 0 10

The principal items of stores comprising the balance in the Magazine are :—

	Rs. a. p.
Bridge-work	1,248 12 1
Engineers' Plant	20,052 7 8
Ballast and Parmanent Way	16,514 11 10
Workshop Machinery and Heavy Tools	2,285 2 2
Locomotive Duplicates	27,036 3 0
Coaching and Goods Stock	11,705 6 0
Station Machinery and Fencing...	5,447 13 6
Tools and Miscellaneous Stores	34,041 0 6
Total ...	1,18,331 8 9

Out of the total stores in the Magazine Rs. 45,209-7-9 represents the value of depreciated or second-hand stores.

The Rs. 83,106-13-7 of Locomotive stores consists of stores as below :—

	Rs. a. p.
Carriage and Wagon Materials...	4,081 6 8
Coal and Coke	71,115 3 7
Timber	5,861 6 1
Petty and Miscellaneous Stores...	2,048 13 8
Total ...	83,106 13 7

Out of Rs. 15,510-10-6 on account of forms and stationery Rs. 14,051-4-7 represents value of forms and books, and Rs. 1,459-5-11 of stationery.

During the year the undermentioned Departments returned to the Magazine stores of the value indicated :—

	Rs.	a.	p.
Engineering Department	14,330	1	9
Locomotive and Carriage Department	161	1	5
Traffic Department	1,161	6	9
Stores do.	156	5	9
Total ...	15,808	15	8

The principal items of stores returned by the Engineering Department on the closing of the construction of the Jetalsar-Rajkot Railway are—

	Rs.	a.	p.
Rails	2,950	11	10
Sleepers...	8,090	4	0
Points and Crossings	1,876	0	0
Lead Sheets	504	3	3

and by the Traffic Department rope, Manilla, worth Rs. 979-2-3.

MORVI RAILWAY—(2′ 6″ *Gauge*).

No alterations of any consequence were made in the Rolling Stock.

Chapter VI.—Capital Transactions.

(*For the alendar cyear ending 31st December 1894.*)

G. I. P. RAILWAY—(*Standard Gauge*).

There was no change during the year in the capital authorised and subscribed, which remain the same as noted in the Administration Report of 1893-94, *viz.* :—

Authorized Capital—

	£	Rs.
Share Capital	20,000,000	
Debenture Stock	6,666,666	
Total ...	26,666,666	= 29,09,09,084

Subscribed Capital—

	£
5 per cent. share capital	20,000,000
4 Do. debenture stock ...	2,701,450
3½ Do. debentures	804,800
3¼ Do. do.	1,866,100
3 Do. do.	300,000
Total interest bearing capital ...	25,672,350

Add—

Capital not bearing interest :—

	£	£
Premia on share capital and loans ...	229,870	
Transferred from Casualty Fund ...	74,137	
		304,057

Less—

	£	£
Discount on loans ...	13,983	
Discount on debenture stock ...	225,891	
		239,874
		64,183

	Rs.
Total Capital paid into Treasury ...	25,736,533 = 28,07,62,174

	£	Rs.
Capital Expenditure—		
On Construction account	25,095,961 =	27,37,74,124
On Stores in suspense	508,994 =	55,52,661
Less credit balance of advances in suspense	19,953 =	2,17,693
Total ...	25,585,002 =	27,91,09,112
Balance available of :—		
Authorised Capital	1,081,664 =	1,17,99,972
Subscribed Capital	151,531 =	16,53,062

The following table gives the detail of Capital expenditure on final heads of account :—

	During 1894.	To end of 1894.
	Rs.	Rs.
Preliminaay expenses	.....	2,72,727
Establishment charges	.....	40,35,134
Engineering and surveying expenses.	20,849	1,47,27,594
Law charges	.....	2,04,577
Stations and Buildings	5,01,936	3,48,96,803
Commission on loans	.....	4,89,815
Passages to Bombay	.....	4,76,508
Permanent way	21,017	6,61,58,170
Works	61,709	10,70,91,324
Electric Telegraph	.....	17,66,926
Locomotive and carriage and wagon expenses	1,92,260	4,36,54,546
Total Final Heads ...	7,97,771	27,37,74,124
Stores Suspense Account ...	10,44,501	55,52,661
Advances in suspense	Cr. 27,021	Cr. 2,17,673
Total final and suspense heads ...	18,15,251	27,91,09,112

The individual Capital works on which the expenditure during the year amounted to Rs. 25,000 or more, are as follows :—

	Expenditure of year. Rs.
Mazgaon—New Suburban Station near Hancock Bridge.	37,712
Byculla—New running shed for goods engines and alterations to existing shed for passenger engines ...	45,709
Curry Road—New station	26,996
Kurla– New station and staff quarters	40,884
Akola—Additions and alterations to station ...	26,891
Nagpur—Additional buildings to station premises, and extending passenger platform	31,525
Introduction of new system of signalling arrangements along the line	59,732
Strengthening old thirty-feet girder bridges along the line...	55,360
Fitting the whole of the Company's coaching stock with automatic vacuum brakes	1,10,091
Fittings and apparatus for lighting trains with Pintsch's patent oil gas	59,802

The interest charges paid for 1894 compare as follows with the net earnings of that year :—

		Rs.
Interest on share capital at	5 per cent.	... 1,09,09,091
„ Debenture stock at	4 per cent.	... 11,78,815
„ Debentures	3½ do.	... 3,07,287
„ Do.	3¼ do.	... 6,61,617
„ Do.	3 do.	... 98,182
	Total Interest	... 1,31,54,992
Net earnings of year, less rent of leased lines and contributions to Provident Fund ...		... 1,62,56,583
Excess of net earnings over interest charges		... 31,01,591

Equivalent to 1·1075 per cent. on the interest bearing capital.

There were no overdrawals of capital during the year, which closed with a balance of Capital in the Company's favour of £151,531 = Rs. 16,53,062.

DHOND & MANMAD AND WARDHA COAL STATE RAILWAYS—(*Standard Gauge*).

The expenditure for the year 1894 was incurred on—

	Rs.
Dhond & Manmad State Railway	... 74,517
Wardha Coal State Railway	... *Nil.*

and it was incurred on the following heads :—

	Dhond & Manmad.	Wardha Coal.
	Rs.	Rs.
Land	169	...
Bridge-work...	259	...
Fencing	92,824	...
Ballast and Permanent-way	175	...
Stations and Buildings	14,424	...
General charges	817	...
Suspense	—34,151	...
Total ...	74,517	*Nil.*

The total expenditure from commencement of operations to end of 1894 was as under :—

	Dhond & Manmad.	Wardha Coal.
	Rs.	Rs.
Expenditure in England	43,97,684	9,47,839
Do. in India	68,13,958	40,39,850
	1,12,11,642	49,87,689

THE BERARS STATE RAILWAYS—(*Standard Gauge*).

The Capital transactions of the year represent refund of expenditure on account of sale of stores to the G. I. P. Railway, as under :—

	Rs.
Khamgaon Railway	1,564
Amraoti Railway	447

The total Capital expenditure from the commencement of operations to end of 1894 was as follows :—

	Rs.
Khamgaon Railway	4,86,003
Amraoti Railway	4,49,461

B. B. & C. I. RAILWAY—(*Standard Gauge*).

During the year a fresh debenture loan of £300,000 at 3 per cent. was raised and paid into the London Treasury. The Capital Account on 31st December 1894 was as follows :—

			Rs.
Capital authorised—			
Share Capital	6,250,000		
Debenture bonds	3,963,500		
		10,213,500 =	11,14,20,000
Capital subscribed—			
Share Capital	6,250,000		
Debenture bonds converted into stock	1,300,300		
Debenture bonds at 3½ per cent. .	1,238,500		
Do. at 3 per cent ...	300,000		
Capital not bearing interest ...	18,419		
		9,107,219 =	9,93,51,475
Capital Expenditure—			
On construction account		8,716,708 =	9,50,91,354
„ Stores in suspense		264,222 =	28,82,427
„ Advances in suspense		—16,116 =	—1,75,811
		8,964,814 =	9,77,97,970
Balance available of—			
Capital authorized		1,248,686 =	1,36,22,030
Capital subscribed		142,405 =	15,53,505

The expenditure on construction account was incurred on—

	Rs.	Cost per open mile. Rs.
Way and Works	7,81,24,932	1,69,468
Rolling Stock	1,69,66,422	36,804
	9,50,91,354	2,06,272

Miles open including Patri Branch ... ... 461 miles.

The outlay during the year was incurred on the following principal works :—

	Rs.
Earth-work	17,412
Minor bridges	1,73,414
Large bridges	7,004
Fencing	38,881
Ballast	1,39,913
Permanent-way	1,28,716
Colába—New Terminal station	59,399
Church Gate—New administrative offices	70,163
Parel—Additional works in Workshops	3,507
Parel—Additional accommodation in the Chief Store-keeper's office	3,358
Miyagaum—Improvement of water-supply	10,181
Parel—Draining Firemen's quarters and rebuilding latrines on Carrol Road	9,493
Viramgam—Quarters for Traffic and Police staff ...	6,982
Crossing stations—Lakhodra, Bajuva, Navli and Boriavi ...	7,158
Santa Cruz—Building pucca quarters for Station Master and Deputy Station Master	3,101
Amroli—Building pucca quarters for Station Master and Deputy Station Master	3,232
Plant	35,301
Rolling Stock. { Locomotive Stock	58,930
Rolling Stock. { Carriage and Wagon Stock	4,47,637
Engineering Establishment	7,152

The total Capital bearing interest to end of 1894 was Rs. 9,91,50,545, and the guaranteed interest paid to the Company during 1894 was Rs. 45,57,450, as under ;—

	Rs.
Paid in England	45,54,800
Do. in India	2,650
Total ...	45,57,450

The net earnings of the year amounted to Rs. 1,01,72,701.

The Gaekwar's Railways.

The expenditure during 1894 is exhibited in the following table :—

Particulars.	Dabhoi Railway (2' 6" gauge).	Petlad Railway (Standard gauge).	Mehsana Railway (metre).
	Rs.	Rs.	Rs.
Preliminary expenses	5,614	.....	−410
Formation	.....	.....	27,502
Bridge work	233	.....	32,115
Fencing	.....	8,162	1,000
Ballast and permanent-way	.....	.....	4,909
Stations and buildings	8,861	821	−1,702
Plant	.....	.....	62
Rolling stock	17,844	.....	.....
General charges	299	354	4,351
Suspense	765	1,376	.....
Total ...	33,616	10,713	67,827

The total Capital outlay, including suspense, from commencement of operations to end of 1894 was as follows :—

	Rs.
Dabhoi Railway	18,88,774
Petlad Railway	7,23,482
Mehsana Railway	30,94,578

Rajputana-Malwa Railway System and Palanpur-Deesa Railway (*Metre Gauge*).

Godhra-Rutlam Railway (Broad Gauge).

The total Capital outlay on the whole system, including the Godhra-Rutlam and Palanpur-Deesa Railways, during and to end of 1894 was as follows :—

Heads of Account.	Rajputana-Malwa Railway System.		Godhra-Rutlam Railway.		Palanpur-Deesa Railway.	
	During 1894.	To end of 1894.	During 1894.	To end of 1894.	During 1894.	To end to 1894.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Preliminary expenses	...	22,71,382	...	1,71,597	−18	1,973
Land	−8,668	13,10,026	665	16,529	...	...
Formation	8,558	72,49,303	16,62,809	56,31,642	1,374	64,211
Bridge-work	13,643	2,15,92,283	6,93,823	35,93,295	−1,751	59,429
Fencing	55,768	26,86,499	1,36,384	1,94,033	2,807	7,791
Electric Telegraph	...	.....	160	160	...	...
Ballast and Permanent-way...	30,565	3,71,15,087	22,22,935	36,67,349	18,200	2,06,059
Stations and Buildings	85,921	1,77,94,780	4,74,110	9,22,608	11,976	38,559
Plant	63,947	29,14,161	21,837	29,352	2,229	6,672
Rolling Stock...	4,86,462	2,11,18,337	...	.....	...	...
General Charges	...	83,33,217	1,56,332	6,65,223	331	14,907
Loss by Exchange	...	49,08,971	...	.....	...	...
Suspense	1,83,673	45,41,401	−20,05,660	5,62,363	...	...
Total Direct Outlay ...	9,19,869	13,18,35,447	33,63,395	1,54,54,141	35,648	3,99,601
Indirect Outlay ...	...	17,86,415	...	.....	...	...
Grand Total ...	9,19,869	13,36,21,862	33,63,395	1,54,54,141	35,648	3,99,601

The capital expenditure during 1894, including suspense, was incurred on the :—

	Rs.
Rajputana-Malwa Railway	8,58,174
Holkar Railway	22,704
Rewari-Ferozpore Railway	3,196
Cawnpore-Achnera Railway	35,795
Godhra-Rutlam Railway	33,63,395
Palanpur-Deesa Railway	35,648
Total ...	43,18,912

For the construction of the Palanpur-Deesa line a sum of Rs. 1,85,000 was contributed by the Palanpur Darbar ; the Capital outlay shown above is inclusive of the contribution.

Southern Mahratta Railway System—(*Metre Gauge*).

(*1*). *Southern Mahratta Railway.*

No additions were made to the capital of the Railway during the year which stood at the close of December 1894 as shown below. But £255,000 of debentures bearing interest at 3½ per cent. were converted during the year into debentures at 3 per cent. :—

	£.	Rs.
Stock and share Capital	3,500,000	
Debentures	943,100	
Total ...	4,443,100	= 5,43,17,200
Capital not bearing interest	30,957	= 4,33,392
Advances by Secretary of State... ...	2,129,900	= 2,55,58,800
Total ...	6,603,957	= 8,03,09,392
Deduct—		
Capital expenditure as noted below ...		7,89,80,004
Balance available		13,29,388

The expenditure of Rs. 7,89,80,004 was incurred as follows :—

	To end of December 1894.	Cost per mile.
	Rs.	Rs.
Way and Works	7,67,65,274	73,671
Rolling Stock	1,03,91,767	9,973
General Charges	64,79,876	6,218
Total final heads	9,36,36,917	
Suspense accounts	19,20,622	
Total ...	9,55,57,539	
Deduct—		
Government expenditure on Bellary-Kistna Railway	1,65,77,535	
Total ...	7,89,80,004	
Miles open	1,042	

The debit of Rs. 19,20,622 under "Suspense" includes Rs. 4,13,043, the Mysore State Railway share of the joint stores account which is now borne wholly on the Southern Mahratta Railway books. Deducting this sum reduces the balance of the Southern Mahratta Railway suspense account to Rs. 15,07,579, and leaves the balance of Southern Mahratta Railway Capital to be spent at Rs. 17,42,431.

The total expenditure during the year amounted to Rs. 4,36,989 and was incurred principally on the following works :—

	Rs.
Booking offices and platforms	14,237
Goods-sheds, platforms and sidings	17,650
Institutes and running rooms	10,579
Water-supply, Hubli	23,000
Workshops and store buildings, Hubli...	14,979
Fencing	9,839
Poona Junction works	5,587
Quarters for the staff	88,996
Additional waterways	56,500
Plant, Locomotive	19,812
Conversion of one class of wagons into another	51,898
Fitting Jones' buffers to Rolling Stock...	15,245

During the year a sum of Rs. 73,299 was also debited to the Capital account of the Railway on account of the Customs shed at Castle Rock.

The following figures show the comparison of interest charges for 1894 with net earnings :—

	Rs.
Interest—	
On subscribed Capital at 3½ per cent.	22,19,209
„ debentures at 3½ per cent.	1,15,425
„ „ „ 3¼ „	3,90,670
„ „ „ 3 „	34,704
„ advances by Secretary of State	11,64,489
„ Bellary-Kistna Railway Government expenditure ...	6,63,102
Total Interest ...	45,87,599
Net earnings less contribution to Provident Fund ...	20,20,701
Excess of interest charges over earnings	25,66,898

(2). Mysore State Railway.

The Capital raised and expended stood as follows on 31st December 1894 :—

	£.	Rs.
Debentures	1,200,000	=1,60,61,569
Capital not bearing interest	24,000	= 3,21,232
Total ...	1,224,000	=1,63,82,801
Capital outlay to 31st December 1894 ...	.....	1,43,47,250
Balance of Capital unexpended ...	.....	20,35,551

The total Capital outlay of Rs. 1,43,47,250 was incurred as follows :—

	To end of December 1894.	Cost per mile.
	Rs.	Rs.
Way and Works	1,12,48,998	38,003
Rolling Stock	22,05,743	7,451
General Charges	8,94,882	3,023
Total ...	1,43,49,623	
Suspense account	—2,373	
Total ...	1,43,47,250	
Miles open	296	

The total Capital outlay of Rs. 1,43,47,250 excludes the sum of Rs. 4,13,043, the Mysore State Railway share of joint stores borne on the Southern Mahratta Railway books, allowing for which the unexpended balance of capital is reduced from Rs. 20,35,551 to Rs. 16,22,508.

The outlay during the year amounted to Rs. 85,597, and the following were some of the principal works undertaken :—

	Rs.
Additions and alterations to Locomotive yard	14,049
Additional machinery for Bangalore Workshops	15,403
Quarters for the staff	7,211
Goods-sheds	5,691
Engine-shed, Harihar	5,317
Sidings	4,218
Fitting Jones' buffers to Rolling Stock...	3,582

The following figures show the comparison of interest charges for 1894 with net earnings :—

	Rs.
Interest on debentures at 4 per cent.	8,38,525
Net earnings of the year less contribution to Provident Fund...	4,77,149
Excess of interest over net earnings	3,61,376

(3). *Mysore-Nanjangud Extension.*

The total Capital outlay on this extension to end of December 1894 was Rs. 6,03,095 expended on—

	Rs.	Cost per mile. Rs.
Way and Works	5,51,616	36,774
General charges...	39,936	2,662
Total ...	5,91,552	
Suspense account	11,543	
Total ...	6,03,095	
Miles open	15	

There was no expenditure on works during the year, but a credit of Rs. 592 was afforded to works for stores returned. The net earnings of this line (after deduction of contribution to the Provident Fund) amounted for 1894 to Rs. 12,737 which is equivalent to a return of 2·11 per cent. on the total Capital outlay.

(4). *Bangalore-Hindupur Section.*

This section was constructed by the Mysore Government. The following is the expenditure incurred to end of December 1894 :—

	Rs.	Cost per mile. Rs.
Way and Works	22,61,599	44,345
General Charges	1,40,069	2,766
Final heads of account	24,01,668	
Suspense accounts	33,331	
Total ...	24,34,999	
Miles open	51	

The net earnings of this line (after deduction of contribution to the Provident Fund) amounted for 1894 to Rs. 55,939, which is equivalent to a return of 2·29 per cent. on the total Capital outlay.

(5). *Kolhapur State Railway.*

This Railway was constructed by the Kolhapur State.

The expenditure to end of December 1894 on final heads of account was as under—

	Rs.	Cost per mile. Rs.
Way and Works	22,03,227	75,973
General charges	1,02,590	3,537
Total ...	23,05,817	
Miles open	29	

The net earnings of the line (after deducting contribution to Provident Fund) amounted to Rs. 43,195, which is equivalent to a return of 1·87 per cent. on the total Capital outlay.

(*6*). *Güntakul-Hindupur Railway.*

The total expenditure to end of December 1894 was as follows:—

	Rs.	Cost per mile, Rs.
Way and Works	52,41,647	44,047
General Charges	6,14,917	5,167
Total ...	58,56,564	
Suspense accounts	1,850	
Total ...	58,58,414	
Miles open	119	

The expenditure during the year, after deducting credits for materials returned, amounted to Rs. 24,479 and was incurred principally on the following works:—

	Rs.
Land...	2,555
Overbridge and approaches east of Guntakul	2,893
Ballast	17,448
Passengers' overbridge, Dharmavaram	7,474
Wagon weigh bridge, Dharmavaram	3,620
Station and office furniture	4,567

The following figures show the comparison of interest charges for 1894 with net earnings:—

	Rs.
Interest on Capital	2,34,528
Net earnings	1,27,873
Excess of interest over net earnings	1,06,655

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge.*)

(Includes the Jetalsar-Rajkot Railway.)

The total Capital outlay on final heads of account to the 31st December 1894 was Rs. 1,84,61,041. The distribution of this amount over the five sections of the Railway was as below:—

	Rs.
Bhavnagar	69,59,165
Gondal	46,42,583
Junagad	35,46,767
Porbandar	18,31,127
Jetalsar-Rajkot	14,81,399
Total ...	1,84,61,041

The amount held in suspense was as follows:—

	Rs.
Bhavnagar	1,39,476
Gondal	1,25,604
Junagad	80,784
Porbandar	40,086
Jetalsar-Rajkot	18,206
Total ...	4,04,156

The Capital expenditure of the year on final heads was as follows:—

	Rs.
Bhavnagar	29,981
Gondal	27,172
Junagad	9,682
Porbandar	27,899
Jetalsar-Rajkot	48,010
Total ...	1,42,744

The following were the principal works on which the expenditure was incurred :—

	Rs.
Bhadar approach bridge	25,745
Agi bridge	27,540

The following statement shows the total Capital outlay, including suspense on each section to the end of 1894 and the financial results thereon, interest being calculated at 4 per cent. :—

	Bhavnagar.	Gondal-Porbandar.	Junagad.	Total, Bhavnagar-Gondal-Junagad-Porbandar Railway.	Jetalsar-Rajkot.
	Rs.	Rs.	Rs.	Rs.	Rs.
Capital outlay to end of 1894	70,98,642	66,39,400	36,27,551	1,73,65,593	14,99,605
Interest on Capital outlay for 1894	2,83,179	2,64,184	1,44,743	6,92,106	58,875
Net earnings for 1894	5,43,372	1,98,387	50,988	7,91,335	61,152
Difference for 1894	+2,60,193	—65,797	—93,755	+99,229	+2,277
Total interest from the beginning to end of 1894	37,92,316	24,16,076	9,32,691	71,41,083	1,17,982
Total net earnings to end of 1894	48,89,343	18,11,690	2,82,189	69,79,965	1,12,049
Difference to end of 1894	+10,97,027	—6,04,386	—6,50,502	—1,61,118	—5,933
Percentage of net earnings on Capital outlay for 1894	7·65	2·99	1·41	4·55	4·07

The year 1894 did not give as good results as 1893, the net profits on the Bhavnagar-Gondal-Junagad-Porbandar Railway being less, *viz.* 4·55 per cent. as against 5·16 per cent. in 1893, which, however, was a record year.

Morvi Railway.—(*2′ 6″ Gauge.*)

The total Capital expenditure on final heads of account to the 31st December 1894 was Rs. 22,02,592-10-1. The amount held in suspense was Rs. 20,933-0-2, thus making the total Capital outlay of Rs. 22,23,525-10-3.

The following are the details of the Capital expenditure on final heads of account :—

	During 1894.	To end of 1894.
	Rs. a. p.	Rs. a. p.
Preliminary Expenses	.....	18,134 7 0
Land	.....	1,171 7 9
Construction of Line	28,496 14 0	6,79,154 1 2
Ballast and Permanent-way	23,378 2 2	9,75,735 12 9
Stations and Buildings	1,100 3 1	38,979 4 11
Plant	—461 11 1	14,603 3 10
Establishment	.....	1,02,846 13 0
Rolling Stock.		
Locomotive	.....	1,40,203 8 3
Carriage and Wagons	24,419 15 8	2,81,763 15 5
Total final heads ...	76,933 7 10	22,02,592 10 1
Store Suspense account ...		20,933 0 2
Total Final and Suspense Heads ...		22,23,525 10 3

The total Capital expenditure for the year amounted to Rs. 76,933-7-10 incurred chiefly on Construction of line, Ballast and Permanent-way and Carriage and Wagon stock.

The increased outlay on construction of line was due to the payment made to the Jetalsar-Rajkot line towards the Aji Bridge extension at Rajkot and that on ballast and permanent-way to the debit for the differences in cost between 19 and 29 lbs. (10 miles) permanent-way afforded to this head on changing the rails.

The increase on carriage and wagon stock accounts for the provision of additional carriages and wagons and the cost of converting the special, upper and lower class carriages into first, second and third classes.

The following statement shows the interest charges at 4 per cent. per annum on the total Capital outlay, including Suspense, to the end of 1894:—

	Rs.	a.	p.
Capital outlay to end of 1894	22,23,525	10	3
Interest on Capital outlay for 1894 ...	87,970	6	8
Net earnings for 1894	1,42,667	5	5
Difference for 1894	+54,696	14	9
Total interest from beginning to end of 1894.	5,55,515	15	0
Total net earnings to end of 1894 ...	7,10,639	2	0
Difference to end of 1894	+1,55,123	3	0

Chapter VII.—Revenue Transactions.

(For the calender year ending 31st December 1894)

G. I. P. Railway—(*Standard Gauge*).

The following table compares the details of revenue and working expenses of the year with those of 1893:—

	1894.	1893.	Increase in 1894.	Decrease in 1894.
Earnings.	Rs.	Rs.	Rs.	Rs.
Coaching traffic	93,72,943	92,35,087	1,37,856	.....
Goods do.	2,65,38,784	2,92,03,680	.....	26,64,896
Electric telegraph	72,722	74,179	.....	1,457
Sundries...	2,89,847	3,00,795	.....	10,948
Total Earnings ...	3,62,74,296	3,88,13,741	.....	25,39,445
Working Expenses.				
Maintenance of way, works and stations	50,81,351	52,61,052	.....	1,79,701
Locomotive expenses... ...	74,66,224	78,06,711	.....	3,40,487
Carriage and wagon expenses ...	17,18,825	19,19,589	.....	2,00,764
Traffic expenses	31,10,406	31,03,517	6,889	.....
General charges	13,96,124	13,18,952	77,172	.....
Special and miscellaneous expenditure	5,67,948	7,42,262	.....	1,74,314
Total ...	1,93,40,878	2,01,52,083	.....	8,11,205
Rent of leased lines	5,50,478	5,17,760	32,718	.....
Contribution to Provident Fund ...	1,26,357	1,24,604	1,753	.....
Total Working Expenses ...	2,00,17,713	2,07,94,447	.....	7,76,734
Net Earnings ...	1,62,56,583	1,80,19,294	.....	17,62,711

The mean mileage worked during the year was 1,490·234 inclusive of 203·307 miles of the four State lines leased to the Company. An increase of M. 0-12·29 appears as having been made to the mileage during the year owing to remeasurement of single lines on the Mohpani branch and on the Tapti-Jabalpur Section.

The gross earnings and working expenses of 1894 amounted respectively to Rs. 3,62,74,296 and Rs. 2,00,17,713 as against Rs. 3,88,13,741 and Rs. 2,07,94,447 in 1893, resulting in a falling off in net earnings of Rs. 17,62,711.

The number of passengers carried increased by 488,480 and the earnings from coaching traffic by Rs. 1,37,856. The increase in the number of 3rd class passengers alone was 414,317 but the increased earnings from that class, amounting to only Rs. 3,648, were not commensurate with the increase in the number of passengers. There was a satisfactory increase in earnings during the first half of the year in consequence partly of larger numbers travelling by ordinary trains than by mail trains and partly of a general development of third class traffic; but during the second half, though the numbers increased in local traffic, a considerable decrease occurred in receipts owing to a falling off in the attendance at the Pandharpur fair. The increased earnings from coaching traffic were principally from (i) parcels for the public due to larger consignments of bullion and to increased traffic with foreign lines; (ii) 1st and 2nd Class passengers partly on account of special trains for the public and partly from ordinary passengers, and (iii) troops and police owing to the arrival and departure of extra troopships. On the other hand, passengers' luggage decreased by half a lakh owing chiefly to less Government treasure carried.

The goods traffic of the year has been very unsatisfactory; having resulted in a decrease of 126,267 in the tonnage carried and of Rs. 26,64,896 in earnings. The commodities under which that decline occurred are principaly (i) Grain and Pulse Rs. 28,85,489, mostly owing to the failure of supplies of wheat and to the low prices prevailing in the European markets for that staple which considerably curtailed its demand for export; (ii) Oil-seeds Rs. 2,78,488 due partly to failure of crops in the second half of the year of rape and mustard seeds, til or gingelly, and other oil-seeds, and partly to the earnings from jinjelli and other oil-seeds in the first half of the previous year having been above the normal; and (iii) Cotton manufactured Rs. 1,89,121, the decrease in which was probably due to the famine in the Saugor District, although it is possible that a portion of the traffic in this commodity may have been diverted by other routes. The chief items of improved earnings are Cotton, raw, Rs. 1,44,503, Drugs and Chemicals Rs. 1,93,593, and Dyes and Tans Rs. 2,67,296: due in respect of the first-named to better than average crops in Khandesh and in the Nagar District; the traffic in drugs and chemicals has been gradually developing, especially in respect of Mowra seed and flowers; while that in Dyes and Tans is mostly in Myrabolams, a forest product, the trade in which is to a great extent speculative, and probably the slackness in the grain and seeds traffic induced greater activity in myrabolams.

Telegraph receipts are practically the same as in 1893, but sundry receipts show a net decrease of about Rs. 11,000 chiefly in sale of revenue stores and in commission on town duties.

The fluctuations in the earnings from the more important commodities carried during the year are shown in the following table:—

	Earnings in 1894.	Earnings in 1893.	Increase in 1894.	Decrease in 1894.
	Rs.	Rs.	Rs.	Rs.
Coal and Coke for public ...	2,52,099	2,51,446	653	.....
Cotton, raw	40,55,818	39,11,315	1,44,503	.....
Cotton, manufactured ...	12,28,850	14,17,971	.....	1,89,121
Drugs and Chemicals ...	4,58,078	2,64,485	1,93,593	.....
Dyes and Tans	7,64,565	4,97,269	2,67,296	.....
Wheat	15,09,010	42,24,423	.....	27,15,413
Rice	8,58,623	8,64,030	.....	5,407
Jowári and Bájri	6,70,859	5,87,959	82,900	.....

	Earnings in 1894.	Earnings in 1893.	Increase in 1894.	Decrease in 1894.
	Rs.	Rs.	Rs.	Rs.
Gram and Pulse	3,08,221	4,37,359	.....	1,29,138
Other Food-grains	4,42,827	5,61,258	.....	1,18,431
Hides, Skins and Horns ...	3,86,257	3,29,197	57,060	.....
Jute	3,21,971	2,93,453	28,518	.....
Liquors	1,44,567	1,53,059	.....	8,492
Metals and Hardware ...	7,59,526	7,88,344	.....	28,818
Oils (mineral and vegetable) ...	8,26,624	8,00,627	25,997	.....
Linseed	30,99,967	27,65,301	3,34,666	.....
Rape and Mustard Seed ...	2,09,977	6,71,912	.....	4,61,935
Til and Gingilly	6,70,480	8,64,305	.....	1,93,825
Other oil-seeds	13,21,831	12,79,225	42,606	.....
Opium	1,27,131	1,25,281	1,850	.....
Paper and Paste-board ...	1,02,828	1,06,403	.....	3,575
Dried fruits and nuts ...	6,04,677	6,44,830	.....	40,153
Other provisions	5,53,043	5,26,284	26,759	.....
Railway plant and rolling stock for the public	1,52,251	2,32,536	.....	80,285
Salt	16,64,049	16,58,340	5,709	.....
Spices	4,25,764	3,90,634	35,130	.....
Stone and Lime	1,01,829	1,06,447	.....	4,618
Sugar	8,15,681	8,02,835	12,846	.....
Timber	5,23,140	5,20,631	2,509	.....
Tobacco	94,573	97,933	.....	3,360
Coal for revenue	6,30,198	6,18,558	11,640	.....
Railway Materials for revenue ...	8,01,084	8,84,052	.....	82,968
All other articles of merchandise...	14,30,162	13,22,694	1,07,468	.....
Total ...	2,63,16,560	2,90,00,396	13,81,703	40,65,539

The principal fluctuations in working expenses are as follows:—

(i) A decrease of Rs. 1,79,701 in maintenence of way, works and stations, due chiefly to smaller ballasting operations, saving in loss by exchange in consequence of heavy withdrawals in India during the first half of the year, and reduction in rate for carriage of revenue stores; the short outlay under this head would have been fully a lakh more but for the charges on account of exchage compensation allowances and extra-ordinary outlay in connection with the damages last monsoon on the Thal Ghat and Mussak Bridge.

(ii) A decrease of Rs. 3,40,487 in locomotive expenses due to savings in overtime, coal and fuel, oil, tallow and sundry stores in consequence of the falling off of traffic; also to a saving in loss by exchange as mentioned under (i); the decrease was reduced by about half a lakh by payments of exchange compensation allowances.

(iii) A decrease of Rs. 2,00,764 in carriage and wagon expenses, partly in materials for renewals and repairs of vehicles due to smaller and cheaper operations, partly in saving under loss by exchange, and partly in carriage of revenue stores due chiefly to alteration in the method of allocating haulage charges.

(iv) A decrease of Rs. 1,74,314 in special and miscellaneous expenditure mainly under mileage and demurrage charges due to decreased traffic, and partly in consequence of the completion of the Tapti Valley Survey in the previous year.

(v) An increase of Rs. 6,889 in traffic expenses due principally to payment of exchange compensation allowances and to increased charges for "fires, lights, water, &c." said to have been caused by enhanced con-

sumption of oils at stations, &c., the rates for which were also higher than in the previous year. A saving of about Rs. 16,000 was effected in loss by exchange and of about Rs. 11,000 in wagon covers ropes, &c., the charges for wagon covers in the previous year having been abnormal.

(vi) General charges increased by Rs. 77,172 mostly on account of exchange compensation allowances, and loss by exchange on stores in the second half of the year.

(vii) The charges for rent of leased lines are Rs. 32,718 more than in 1893 in consequence of larger earnings on the State lines in 1894.

The percentage of working expenses on gross earnings was 55·18 in 1894 against 53·57 in 1893, 50·28 in 1892, and 48·62 in 1891; a steady increase. Though there has been a decrease of Rs. 7,76,734 in working expenses during the year, that decrease does not appear commensurate with the large decrease of Rs. 25,39,445 in earnings. Further reductions in expenses seem necessary, particularly in the Traffic Department, the expenses of which are practically undiminished notwithstanding the steady decline in traffic.

The divisible surplus profits of the first half of 1894 at the date of submission of accounts amounted to Rs. 60,66,758 as against Rs. 58,45,793 in the preceding year. There were no surplus profits in the second half of 1894, the net earnings amounting to Rs. 35,86,999, excluding rent of leased lines, having fallen short of the guaranteed interest of Rs. 65,77,496 by Rs. 29,90,497. The corresponding shortage in the second half of 1893 was Rs. 10,04,508.

After deducting from the net earnings of the year the Company's moiety of surplus profits, charges for guaranteed interest, rent of leased lines, contributions to Provident Fund, interest on overdrawn capital and irrecoverable outstandings witten off, the net result shows a gain to the State of Rs. 44,277 only, as against Rs, 19,18,723 in 1893 and Rs. 32,86,836 and Rs. 48,74,813 in 1892 and 1891 respectively.

The chief features of the year's transactions are compared with those of 1893 in the following table :—

	1894.	1893.	Increase in 1894.	Decrease in 1894.
	Rs.	Rs.	Rs.	Rs.
Gross earnings	3,62,74,296	3,88,13,741	...	25,39,445
Working expenses	2,00,17,713	2,07,94,447	...	7,76,734
Net earnings	1,62,56,583	1,80,19,294	...	17,62,711
Percentage of working expenses on gross earnings	55·18	53·57	...	.....
	No.	No.	No.	No.
Train mileage, including train mileage of foreign lines worked by Company	9,174,096	9,894,358	...	.....
Open mileage worked by Company...	1,490·234	1,490·080	...	.....
	Rs.	Rs.	Rs.	Rs.
Gross earnings per train mile ...	3·95	3·92	0 0 3	.....
Working expenses per train mile ...	2·18	2·10	0 0 8	.....
Net earnings per train mile ...	1·77	1·82	...	0·05
Gross earnings per open mile ...	24,341	26,048	...	1,707
Working expenses per do. ...	13,433	13,955	...	522
Net earnings per do. ..	10,908	12,093	...	1,185
Percentage of net earnings on total capital bearing interest Rs. 28,00,62,000 in both years ...	5·80	6·43	...	0·63

DHOND AND MANMAD AND WARDHA COAL STATE RAILWAYS—(*Standard Gauge.*)

The results of the year's transactions as compared with the previous year are shown in the following table :—

Particulars.	Dhond and Manmad Railway.			Wardha Coal Railway.		
	1893.	1894.	Difference.	1893.	1894.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	12,90,798	13,61,866	71,068	2,10,856	2,20,237	9,381
Working expenses ...	9,42,226	9,79,873	37,647	1,21,643	1,30,947	9,304
Net earnings	3,48,572	3,81,993	33,421	89,213	89,290	77
Percentage of expenses on earnings	73·06	71·95	—1·11	57·69	59·45	1·76
	Train miles.	Train miles.	Train miles.	Train miles.	Train miles.	Train miles.
Train mileage	506,506	523,438	16,932	113,699	108,216	—5,483
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile...	2·55	2·60	0·05	1·85	2·04	0·19
Expenses per train mile.	1·86	1·87	0·01	1·07	1·21	0·14
Net earnings per train mile	0·69	0·73	0·04	0·78	0·83	0·05
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Open miles	145·44	145·44	.....	44·88	44·88	.....
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Earnings per open mile.	8,875	9,364	489	4,698	4,907	209
Expenses per open mile.	6,478	6,737	259	2,710	2,918	208
Net earnings per open mile	2,397	2,627	230	1,988	1,989	1
Percentage of net earnings on total Capital outlay including suspense	3·13	3·41	0·28	1·79	1·79	.....

The working expenses as shown above for the Dhond and Manmad State Railway consist of the following :—

	1893.	1894.
	Rs.	Rs.
(*a*) Amount paid to the G. I. P. Railway Company based on the sliding scale of percentages ...	9,29,375	9,66,924
(*b*) Amount paid to Government Telegraph Department for interest on Capital cost of Telegraph Line	7,761	7,787
(*c*) Amount paid to G. I. P. Railway Company for interest on Capital cost of Dhond and Manmad permanent staff quarters	5,090	5,162
Total ...	9,42,226	9,79,873

The working expenses of the Wardha Coal State Railway, shown above, consist of the following :—

	1893.	1894.
	Rs.	Rs.
(*a*) Paid to the Company at their rate of working expenses on gross receipts	1,09,615	1,18,450
(*b*) 5 per cent. for use of Company's rolling stock...	10,543	11,012
(*c*) Amount paid to the Government Telegraph Department for interest and rent, &c. ...	1,485	1,485
Total ...	1,21,643	1,30,047

Traffic and Working.

The revenue derived during 1894 is compared with that of the preceding year in the following table :—

Particulars.	Dhond and Manmad.			Wardha Coal.		
	1893.	1894.	Difference.	1893.	1894.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	6,39,411	6,01,911	—37,500	40,193	39,516	—677
Goods	6,42,871	7,51,221	1,08,350	1,68,082	1,78,281	10,199
Electric Telegraph ...	2,302	2,893	591	1,149	1,066	—83
Sundries	6,214	5,841	—373	1,432	1,374	—58
Total ...	12,90,798	13,61,866	71,068	2,10,856	2,20,237	9,381

The following statement shows the receipts derived from the several classes of passengers during 1894 compered with 1893 :—

	Dhond and Manmad.						Wardha Coal.					
	1893.		1894.		Difference.		1893.		1894.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
First Class	2,736½	13,859	2,797½	14,357	61	498	341½	1,029	425	1,311	83½	282
Second Class	12,705½	25,948	11,252	24,994	—1,453½	—954	418½	607	496½	678	78	71
Third Class by Mail ...	...	...	...	...	...	...	223½	154	387½	251	164	97
Third Class by other trains	707,093½	5,35,278	696,904	5,00,672	—10,189½	—34,606	133,870½	36,003	128,480	34,599	—5,390½	—1,404
Total ...	722,535½	5,75,085	710,953½	5,40,023	—11,582	—35,062	134,854	37,793	129,789	36,839	—5,065	—954
Other Receipts... ...	...	64,326	...	61,888	...	—2,438	...	2,400	...	2,677	...	277
Total, Coaching ...	722,535½	6,39,411	710,953½	6,01,911	—11,58½	—37,500	134,854	40,193	129,789	39,516	—5,065	—677

The goods traffic during 1894 under each of the classified heads is compared with the year 1893 in the subjoined statement :—

Particulars.	Dhond and Manmad.			Wardha Coal.		
	1893.	1894.	Difference.	1893.	1894.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Merchandise, general ...	5,99,961	7,11,646	1,11,685	69,327	88,512	19,185
Military stores	16,580	15,514	—1,066	6	6	.....
Railway material for construction	125	1,363	1,238	.....	5	5
Coal	13,197	6,720	—6,477	97,389	88,677	—8,712
Revenue stores	7,208	8,725	1,517	1,009	592	—417
Other items	5,800	7,253	1,453	351	489	138
Total ...	6,42,871	7,51,221	1,08,350	1,68,082	1,78,281	10,199

It will be seen from the above that the increase both on Dhond and Manmad and Wardha Coal State Railways is under General Merchandise.

The Berars State Railways—(*Standard Gauge*).

These lines are worked by the G. I. P. Railway Company. The results of the year's transactions are compared with those of 1893 in the following table:—

Particulars.	Khamgaon.			Amraoti.		
	1893.	1894.	Difference.	1893.	1894.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	51,004	53,073	2,069	1,02,043	1,02,521	478
Working expenses	29,307	31,106	1,799	58,987	60,611	1,624
Net earnings	21,697	21,967	270	43,056	41,910	—1,146
Percentage of expenses on earnings	57·46	58·61	1·15	57·81	59·12	1·31
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Train mileage	11,776	12,120	144	21,918	21,906	—12
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile	4·33	4·38	0·05	4·65	4·68	0·03
Expenses per train mile	2·49	2·57	0·08	2·69	2·77	0·08
Net receipts per train mile ...	1·84	1·81	—0·03	1·96	1·91	—0·05
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Open miles	7·55	7·55	...	5·44	5·44	...
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Earnings per open mile	6,755	7,030	275	18,758	18,846	88
Expenses per open mile	3,882	4,120	238	10,843	11,142	299
Net earnings per open mile ...	2,873	2,910	37	7,915	7,704	—211
Percentage of net earnings on total Capital outlay, including suspense	4·45	4·52	0·07	9·57	9·32	—0·25

The working expenses shown above consist of the following:—

	Khamgaon.		Amraoti.	
	1893.	1894.	1893.	1894.
	Rs.	Rs.	Rs.	Rs.
Paid to the Company at their rate of working expenses on gross receipts	26,757	28,452	53,000	54,600
5 per cent. for use of Company's rolling stock	2,550	2,654	5,102	5,126
Interest on capital cost of additional short platform at Badnera Station	...	...	885	885
Total ...	29,307	31,106	58,987	60,611

Traffic and Working.

The figures for 1893 and 1894 under the four main heads of receipts are compared in the subjoined table :—

	Khamgaon Railway.			Amraoti Railway.		
	1893.	1894.	Difference.	1893.	1894.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	12,424	12,463	39	30,892	30,324	—568
Goods	38,245	40,242	1,997	69,893	70,558	665
Electric Telegraph	99	113	14	1,209	1,573	364
Sundries	236	255	19	49	66	17
Total ...	51,004	53,073	2,069	1,02,043	1,02,521	478

The coaching receipts for the year under review were derived from —

	Khamgaon Railway.						Amraoti Railway.					
	1893.		1894.		Difference.		1893.		1894.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
First Class	313	158	262½	131	—50½	27	1,179½	434	1,328	492	148½	58
Second Class	1,028¼	256	1,259	311	231¼	55	5,795½	1,080	6,294¼	1,175	499	95
Third Class	103,389	11,354	104,246½	11,422	857½	68	354,576	27,776	347,655½	27,218	—6,920½	—558
Total ...	104,730¼	11,768	105,768	11,864	1,038¾	96	361,551	29,290	355,278	28,885	—6,273	—405
Other receipts	...	656	...	599	...	—57	...	1,602	...	1,439	...	—163
Total ...	104,730¼	12,424	105,768	12,463	1,038¾	39	361,551	30,892	355,278	30,324	6,273	—568

The goods traffic during 1894 under each of the classified heads is as follows :—

Particulars.	Khamgaon Railway.			Amraoti Railway.		
	1893.	1894.	Difference.	1893.	1894.	Difference
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Merchandise, general	37,753	39,757	2,004	68,020	68,712	692
Military stores	...	...	...	59	137	78
Railway material for Construction	...	...	...	...	...	...
Coal	279	209	—70	972	1,153	181
Revenue stores	9	46	37	9	6	—3
Other goods traffic	204	230	26	833	550	—283
Total ...	38,245	40,242	1,997	69,893	70,558	665

It will be seen from the above that the increase both on the Khamgaon and the Amraoti Railways is chiefly due to the general merchandise traffic.

Bombay Baroda and Central India Railway—(*Standard Gauge*).

The result of the year's transactions as compared with 1893 is shown in the subjoined table:—

	1893.	1894.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	1,50,96,045	1,59,48,483	+8,52,438
Working expenses	54,21,254	57,75,782	+3,54,528
Net earnings	96,74,791	1,01,72,701	+4,97,910
Percentage of expenses on earnings ...	35·91	36·22	+0·31
	Miles.	Miles.	Miles.
Train mileage	2,429,535	2,463,681	+34,146
	Rs.	Rs.	Rs.
Receipts per train mile	6·21	6·47	+0·26
Expenses per do.	2·23	2·34	+0·11
Net receipts per do.	3·98	4·13	+0·15
	Miles.	Miles.	Miles.
Open miles	461	461	.....
	Rs.	Rs.	Rs.
Receipts per open mile	32,746	34,595	+1,849
Expenses per do.	11,760	12,529	+769
Net receipts per do.	20,986	22,066	+1,080
Percentage of net earnings on Capital bearing interest	10·09	10·26	+0·17

The following table gives the details of earnings and working expenses for the year 1894 as compared with 1893:—

	1893.	1894.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	49,55,714	49,87,143	+31,429
Goods	98,91,624	1,05,81,899	+6,90,275
Electric Telegraph	49,986	47,091	—2,895
Sundries	1,98,721	3,32,350	+1,33,629
Total ...	1,50,96,045	1,59,48,483	+8,52,438
Working Expenses.			
Maintenance of way, works and stations ...	12,05,192	12,98,865	+93,673
Locomotive expenses	19,71,594	22,86,580	+3,14,986
Carriage and wagon expenses	6,61,657	5,81,923	—79,734
Traffic expenses	9,04,898	8,93,820	—11,078
General Charges	5,56,337	5,75,523	+19,186
Special and miscellaneous expenditure ...	1,21,576	1,39,071	+17,495
Total ...	54,21,254	57,75,782	+3,54,528
Net Earnings ...	96,74,791	1,01,72,701	+4,97,910

Earnings.

Compared with 1893 the traffic of 1894 shows an increase of Rs. 8,52,438.

Coaching Traffic.—The increase in the number of passengers carried and the earnings therefrom amounted to 569,270 and Rs. 51,839. This improvement is due to development of passenger traffic under all classes.

Traffic and Working.

The following table compares the coaching traffic during 1894 with that of 1893 :—

	1893.		1894.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First Class...	105,968	1,41,604	114,422	1,38,883	8,454	—2,721
Second Class	1,037,144	3,48,588	1,062,986	3,71,329	25,842	22,741
Intermediate Class	480,016	7,78,615	516,691	7,88,051	36,675	9,436
Third Class	13,128,532	30,79,362	13,626,831	31,01,745	4,98,299	22,383
Total ...	14,751,660	43,48,169	15,320,930	44,00,008	5,69,270	51,839
Other receipts	.....	6,07,545	.....	5,87,135	.....	—20,410
Total ..	14,751,660	49,55,714	15,320,930	49,87,143	5,69,270	31,429

The decrease under "other receipts" is chiefly due to less receipts from passengers' luggage and also from parcels carried for the public.

The total increase shown above was derived from—

	No.	Rs.
Ordinary passenger traffic	385,460	43,223
Season tickets	183,810	8,616
Other receipts	...	—20,410
	569,270	31,429

The following table shows the fluctuations in goods traffic as compared with the traffic for 1893 :—

	1893.		1894.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General Merchandise	1,233,838	90,34,731	1,292,477	96,10,914	+58,639	+5,76,103
Military stores	576	18,916	715	24,367	+139	+5,451
Railway material for Construction	26,397	36,226	51,586	64,489	+25,189	+28,263
Coal for Public	42,024	2,32,475	46,670	2,63,126	+4,646	+30,651
Coal for Construction	459	782	282	390	—177	—392
Coal for Revenue	52,955	1,14,430	54,890	1,28,340	+1,935	+13,910
Revenue Stores	99,165	1,06,860	86,170	1,01,999	—12,995	—4,861
Live Stock	No 496,801	3,36,659	No. 548,452	3,78,805	+51,651	+42,146
Rents, &c.	.....	10,545	.....	9,469	.....	—1,076
Total ...	1,453,414	98,91,624	1,532,790	1,05,81,899	+77,376	+6,90,275

It will be seen from the above that the increase which is attributable in a great measure to the through opening of the Godhra-Rutlam Railway is due chiefly to "General Merchandise" and has occurred principally in grain and pulse, oil-seeds, salt, sugar, timber, tobacco and coal and coke. It is, however, slightly counterbalanced by a falling off in "cotton traffic" and in provisions.

The carriage of Railway material for construction, coal for public and for revenue, and receipts from live stock have also contributed towards the increase.

The fluctuations in the more important commodities carried during 1893 and 1894 are shown in the following statement :—

	1893.	1894.	Increase.
	Tons.	Tons.	Tons.
Coal and Coke	42,025	46,670	4,645
Cotton	141,177	127,927	—13,250
Dyes and Tans	8,392	9,226	834
Grain and Pulse	196,958	223,310	26,352
Jute	7,433	8,731	1,298
Metals	29,671	31,115	1,444
Oils	9,842	10,254	412
Oil-seeds	217,116	237,702	20,586
Provisions	44,150	40,199	—3,951
Railway Material and Rolling Stock ...	26,220	26,304	84
Salt	144,233	152,646	8,413
Spices	9,406	11,563	2,157
Stone and Lime	29,865	27,347	—2,518
Sugar	42,504	50,271	7,767
Timber	33,878	38,505	4,627
Tobacco	15,271	20,953	5,682

The increase under Sundry Earnings is principally due to hire of locomotives and arrears of interest charges recovered from Godhra-Rutlam Railway during the year.

Working Expenses.

Maintenance of Way, Works and Stations.—The increase is partly due to the heavy expenditure on reconstruction of the Dhadhar Bridge and repairs to monsoon damages, and partly to the large credits in 1893 on account of sale of rails to the Godhra-Rutlam Railway. Owing to the larger use of English material and unfavourable rate of exchange the loss by exchange has also contributed towards the increase.

Locomotive Expenses.—The increase is chiefly due to a larger consumption of coal in 1894 owing to increased mileage run and to a rise in the average price of the coal. The renewals of 3 locomotive boilers and 5 engines in 1894 against 2 boilers and 2 engines in 1893 has also contributed towards the increase.

Carriage and Wagon Expenses.—The decrease is chiefly due to alterations of buffers of vehicles and to renewal of 50 steel covered wagons in 1893. The decrease is, however, counterbalanced by a small increase under repairs and renewals of vehicles.

Traffic Expenses.—The decrease is chiefly due to the supply of new wagon covers in 1893. There were increases under General Superintendence on account of grant of exchange compensation, and under station staff due to increase of traffic.

General Charges.—The increase is partly due to the more unfavourable rate of exchange and special repairs to fire-engines, and partly to the payment of exchange compensation.

Special and Miscellaneous Expenses.—The increase is chiefly due to the heavy claims settled during the year for damages to goods caused by excessive rain.

General Results.

The total amount payable to the Railway Company on account of surplus profits in comparison with 1893 is shown in the following statement :—

	1893.	1894.
	Rs.	Rs.
Net earnings	96,74,791	1,01,72,701
Deduct—.		
Guaranteed Interest	45,57,450	45,57,450
Interest on overdrawn Capital	1,519	42,097
Contribution to Provident Fund	96,748	1,01,727
Total ...	46,55,717	47,01,274
Balance Surplus Profits ...	50,19,074	54,71,427
Moiety payable to the Company ...	25,09,537	27,35,713
Add—Guaranteed Interest ...	45,57,450	45,57,450
(*a*) Total payable to the Company ...	70,66,987	72,93,163
Percentage on total Capital bearing interest, viz., Rs. 9,91,50,545 for 1894	7·37	7·36
(*b*) Amount payable to the Company for Rajputana-Malwa Railway ($\frac{1}{5}$ surplus profits for 1894)	13,12,591	16,90,156
Total payable to the Company (*a*+*b*) ...	83,79,578	89,83,319
Percentage on total capital bearing interest	8·74	9·06

The Gaekwar's Railways.

The chief features of the year's transactions are compared with those for 1893 in the following table :—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1893.	1894.	Difference.	1893.	1894.	Difference.	1893.	1894.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	2,52,106	2,40,316	—11,790	63,953	69,668	5,715	3,36,860	3,79,972	43,112
Working expenses ...	1,19,599	1,44,887	25,288	23,326	25,632	2,306	1,38,608	1,43,585	4,977
Net earnings	1,32,507	95,429	—37,078	40,627	44,036	3,409	1,98,252	2,36,387	38,135
Percentage of working expenses to earnings ...	47·44	68·29	12·85	36·47	36·79	0·32	41·15	37·79	—3·36
	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. Miles.	T. miles.
Train miles...	88,757	82,322	—6,435	19,451	19,557	106	1,01,374	1,18,972	17,598
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile ...	2·84	2·92	0·08	3·29	3·56	0·27	3·32	3·19	—0·13
Expenses do. ...	1·35	1·76	0·41	1·20	1·31	0·11	1·37	1·21	—0·16
Net receipts do. ...	1·49	1·16	—0·33	2·09	2·25	0·16	1·95	1·98	+0·03
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Open miles...	72	72	...	13	13	...	92·63	92·63	...
	Rs.			Rs.			Rs.		
Receipts per open mile ...	3,501	3,337	—164	4,919	5,359	440	3,636	4,102	+466
Expenses do. ...	1,661	2,012	351	1,794	1,972	178	1,496	1,550	+ 54
Net receipts do. ...	1,840	1,325	—515	3,125	3,387	262	2,140	2,552	+312
Percentage of net earnings on total Capital expended, including Suspense...	7·14	5·05	—2·09	5·70	6·09	+0·39	6·55	7·64	+1·09

The gross earnings and working expenses for the two years 1893 and 1894 are compared in the following tables :—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1893.	1894.	Difference.	1893.	1894.	Difference.	1893.	1894.	Difference.
Earnings.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	1,41,324	1,43,727	+2,403	45,345	49,577	+4,232	1,50,621	1,62,456	+11,835
Goods	1,08,801	94,110	—14,691	17,539	19,034	+1,495	1,84,608	2,14,766	+30,158
Electric Telegraph ...	1,631	1,367	—264	644	625	—19	1,621	2,658	+1,037
Sundries	350	1,112	+762	425	432	+7	10	92	+82
Total ...	2,52,106	2,40,316	—11,790	63,953	69,668	+5,715	3,36,860	3,79,972	+43,112

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1893.	1894.	Difference.	1893.	1894.	Difference.	1893.	1894.	Difference.
Working Expenses.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Maintenance of way, works and stations ..	36,868	49,963	+13,095	5,182	5,796	+614	23,468	23,739	+271
Locomotive expenses ...	36,695	43,978	+7,283	8,468	10,118	+1,650	57,975	60,568	+2,593
Carriage and Wagon expenses	11,175	13,889	+2,714	2,825	2,594	—231	14,175	14,890	+715
Traffic expenses	22,583	24,205	+1,622	3,922	3,951	+29	22,483	23,250	+767
General charges	12,276	12,844	+568	2,406	2,557	+151	17,728	18,702	+974
Special and Miscellaneous expenditure ... ..:	2	8	+6	523	616	+93	2,779	2,436	—343
Total ..	1,19,599	1,44,887	+25,288	23,326	25,632	+2,306	1,38,608	1,43,585	+4,977
Net Earnings ..	1,32,507	95,429	—37,078	40,627	44,036	+3,409	1,98,252	2,36,387	+38,135

Earnings.

The following table compares the coaching traffic during 1894 with that of 1893 :—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	Passengers.		Other Receipts.	Passengers.		Other Receipts.	Passengers.		Other Receipts.
	No.	Rs.	Rs.	No.	Rs.	Rs.	No.	Rs.	Rs.
1893	450,007	1,35,870	5,454	245,539	43,467	1,878	573,585	1,42,109	8,512
1894	456,807	1,38,607	5,120	271,256	47,740	1,837	622,668	1,53,174	9,282
Difference ..	+6,800	+2,737	—334	+25,717	+4,273	—41	+49,083	+11,065	+770

The increase on all the Railways in the number of passengers carried and the earnings therefrom is chiefly in the lower class of passengers.

The following table shows the receipts from goods traffic during 1894 compared with those of 1893 under the classified heads :—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1893.	1894.	Difference.	1893.	1894.	Difference.	1893.	1894.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Merchandise, general ...	1,05,097	90,534	—14,563	17,038	18,252	+1,214	1,83,051	2,12,158	+29,107
Military stores	...	...	...	...	...	...	8	5	—3
Railway material for construction	64	39	—25	...	...	...	16	1,037	+1,021
Coal for Public	779	280	—499	...	2	+2	22	43	+ 21
Do. for Revenue ...	119	248	+129	45	139	+94	...	...	—
Revenue stores	2,148	2,480	+332	....	14	+14	6	210	+204
Live-stock	191	191	...	259	331	+72	814	531	—283
Rents, &c.	403	338	—65	197	296	+99	691	782	+91
Total ...	1,08,801	94,110	—14,691	17,539	19,034	+1,495	1,84,608	2,14,766	+30,158

The tonnage lifted during the year 1894 compared with that of 1893 will be found in the following table:—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1893.	1894.	Difference.	1893.	1894.	Difference.	1893.	1894.	Difference.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Merchandise, general ...	50,050	43,081	—6,969	21,179	20,098	—1,081	1,32,645	1,58,164	+25,516
Military stores	...	...	...	...	...	...	3	1	—2
Railway material for Construction	124	65	—59	...	...	...	36	4,005	+3,969
Coal for Public	527	250	—277	...	3	+3	11	24	+13
Do. for Revenue ...	206	426	+220	158	490	+332	...	...	...
Revenue stores	4,549	5,215	+666	...	58	+58	22	423	+401
	No.	No	No	No	No	No.	No	No	No
Live-stock	3,390	2,417	—973	1,298	1,876	+578	11,588	4,748	—6,840
Total ...	55,456	49,037	—6,419	21,337	20,649	—688	1,32,720	1,62,617	29,897

Dabhoi Railway.—The tonnage of goods carried fell from 55,456 tons to 49,037 tons, and the earnings from Rs. 1,08,801 to Rs. 94,110, or less by 6,419 tons and Rs. 14,691.

The decrease is entirely due to the merchandise traffic, chiefly in cotton, grain, pulse, and mowra flowers.

Petlad Railway.—The tonnage of goods carried fell from 21,337 tons to 20,649 tons, while the earnings therefrom rose from Rs. 17,539 to Rs. 19,034 or by Rs. 1,495.

The increase is entirely due to general merchandise, chiefly tobacco.

Mehsana Railway.—There was an improvement in goods traffic, chiefly in grain and pulse, oil-seeds, salt and sugar, the increase in quantity carried and earnings therefrom being tons 5,038 and Rs. 5,445, tons 8,935 and Rs. 9,410, tons 7,569 and Rs. 8,224 and tons 1,880 and Rs. 3,150, respectively; the traffic in railway material for construction was also better, but there was a falling off in the number and amount of live-stock.

The fluctuations in the more important commodities are shown in the following table:—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1893.	1894.	Difference.	1893.	1894.	Difference.	1893.	1894.	Difference.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Cotton	5,916	3,080	—2,896	1,190	800	—390	794	1,037	+243
Grain and Pulse	9,334	7,874	—1,460	2,306	1,769	—537	33,312	38,350	+5,038
Firewood	3,270	3,737	+467	345	537	+192	1,744	927	—817
Mowra flowers	9,238	6,362	—2,876	...	...	...	132	149	+17
Oil-seeds	2,833	3,532	+699	1,247	794	—453	36,372	45,307	+8,935
Stones and Lime ...	4,210	4,019	—191	1,230	1,185	—45	1,173	1,685	+512
Salt	2,115	2,174	+59	777	937	+160	35,704	43,273	+7,569
Sugar and Jágri	1,313	1,292	—21	694	891	+197	7,735	9,615	+1,880
Timber	2,805	2,228	—577	1,830	2,014	+184	2,870	3,907	+1,037
Tobacco	...	...	...	6,227	6,675	+448	274	327	+53
Other articles	5,500	4,486	—1,014	3,893	2,395	—1,498	12,552	13,612	+1,060

Working Expenses.

Dabhoi Railway.—The working expenses rose from Rs. 1,19,599 to Rs. 1,44,887, or by Rs. 25,288. The fluctuations were increases under all the abstracts of expenditure, as under :—

		Rs.
(*a*)	Maintenance of way, works and stations	13,095
(*b*)	Locomotive expenses	7,283
(*c*)	Carriage and wagon expenses	2,714
(*d*)	Traffic expenses	1,622
(*e*)	General charges	568
(*f*)	Special and miscellaneous expenses	6
	Total increase ...	25,288

(*a*) The increase is due chiefly to expenditure incurred in the 2nd half of 1894 in repairing heavy damages caused by monsoon floods. There was also heavy outlay in the first half of 1894 on renewal of permanent way.

(*b*) The increase is partly due to the repairs of two engines against only one in 1893, and partly to the higher prices of coal. Loss by exchange on English stores used has also contributed towards the increase.

(*c*) The increase is due partly to an adjustment of a large under-charge taken credit for in the previous year and partly to a charge for loss by exchange on English material.

(*d*) The increase is entirely due to a large number of wagon covers and ropes having been issued during the year.

(*e*) & (*f*) The increases are small, and call for no special explanation.

Petlad Railway.—The fluctuations in working expenses were increases under "Maintenance of way, works and stations," Locomotive expenses, "Traffic expenses," "General charges" and "Special and miscellaneous expenditure" of Rs. 614, Rs. 1,650, Rs. 29, Rs, 151, and Rs. 93, respectively, and a decrease of Rs. 231 under "Carriage and wagon expenses."

The working expenses are calculated at the same percentage on the gross earnings of the Petlad Railway as obtains on the B. B. & C. I. Railway and they consequently follow the fluctuations on the Company's own line.

Mehsana Railway.—The increase in working expenses is due to increase in traffic, the expenses being taken at the same percentage of expenses to earnings as obtains on the Rajputana-Malwa Railway.

RAJPUTANA-MALWA RAILWAY SYSTEM—(*Metre Gauge*). (INCLUDES THE GODHRA-RUTLAM RAILWAY (*Broad Gauge*).

The working results of the year's transactions, as compared with those of 1893, are shown in the following table :—

	1893.	1894.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	2,26,33,265	2,51,44,200	+25,10,935
Working expenses	93,07,625	96,10,377	+3,02,752
Net earnings	1,33,25,640	1,55,33,823	+22,08,183
Percentage of working expenses to earnings ...	41·12	38·22	—2·90
	T. Miles.	T. miles.	T. Miles.
Train mileage	6,584,242	7,157,119	+572,877
	Rs.	Rs.	Rs.
Receipts per train mile	3·44	3·51	+0·07
Expenses do.	1·41	1·34	—0·07
Net Receipts do.	2·03	2·17	+0·14
	Miles.	Miles.	Miles.
Open miles	1,699·018	1,789·518	+90·500
	Rs.	Rs.	Rs.
Receipts per open mile	13,321	14,051	+730
Expenses do.	5,478	5,370	—108
Net receipts do.	7,843	8,681	+838
Percentage of net earnings on total Capital outlay, excluding indirect charges	9·32	10·55	+1·23

The gross earnings and working expenses for the two years 1893 and 1894 are compared in the following table:—

	1893.	1894.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	66,64,577	70,16,401	+3,51,824
Goods	1,56,25,555	1,77,44,520	+21,18,965
Electric Telegraph	65,229	64,306	− 923
Sundries	2,77,904	3,18,973	+41,069
Total ...	2,26,33,265	2,51,44,200	+25,10,935
Working Expenses.			
Maintenance of way, works and stations ...	15,75,801	15,84,177	+8,376
Locomotive expenses	38,92,872	40,34,711	+1,41,839
Carriage and Wagon expenses	9,51,378	10,05,703	+54,325
Traffic expenses	15,09,162	15,59,305	+50,143
General charges	11,88,684	12,56,525	+67,841
Special and Miscellaneous expenditure ...	1,89,728	1,69,956	− 19,772
Total ...	93,07,625	96,10,377	+3,02,752
Net Earnings ...	1,33,25,640	1,55,33,823	+22,08,183

The principal fluctuations in the working expenses were increases of Rs. 8,376, Rs. 1,41,839, Rs. 54,525, Rs. 50,143, and Rs. 67,840 under Abstracts A, B, C, D and E, respectively, and a decrease of Rs. 19,772 under "Special and Miscellaneous Expenditure." The increases under all the heads were due chiefly to the payment of exchange compensation allowance, to the opening of the Godhra-Rutlam Railway, and to the increase in traffic. The decrease under Abstract G was due to the fact that the expenditure in 1893 included arrears of shunting charges at Cawnpore amounting to Rs. 34,450 paid to the East Indian Railway.

The following figures show the result of the year's working as compared with 1893:—

	1893.	1894.
	Rs.	Rs.
Net earnings	1,33,25,640	1,55,33,823
Interest	67,59,610	70,73,069
Gross divisible surplus	65,62,957	84,50,780
⅕th share payable to the Company ...	13,12,591	16,90,156

Traffic and Working.

The total open mileage on 31st December 1894 was 1,789·518 and the mean mileage worked by the Company during 1894 was 1,729·17.

The following statement shows the receipts under coaching derived from the several classes of passengers, and the number carried:—

	1893.		1894.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First class	17,368	1,22,762	18,999	1,40,445	1,634	17,683
Second class	75,812	1,95,726	76,117	2,13,923	305	18,197
Intermediate class	250,084	2,95,674	281,767	3,22,396	31,683	26.722
Third class...	9,825,216	54,18,195	10,262,799	56,41,552	437,583	2,23,357
Total ...	10,168,477	60,32,357	10,639,682	63,18,316	471,205	2,85,959
Other Receipts	.....	6,32,220	.....	6,98,085	.....	65,865
Total Coaching ...	10,168,477	66,64,577	10,639,682	70,16,401	471,205	3,51,824

There was a general improvement in passenger traffic both as to number and receipts which may be ascribed partly to a larger attendance at fairs and partly to the movements of Hindu marriage parties.

The following table shows the goods traffic during 1894 compared with that of 1893 under the classified heads :—

	1893.		1894.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Merchandise, general	1,596,490	1,47,63,298	1,826,266	1,69,27,920	+ 229,776	+ 21,64,622
Military stores	5,381	93,529	5,146	83,821	— 235	— 9,708
Railway material for Construction	116,266	2,15,660	110,372	1,79,050	— 5,894	— 36,610
Coal for public	7,609	45,517	9,272	45,455	+ 1,663	— 92
Do. for Construction	2,754	11,054	4,241	14,621	+ 1,487	+ 3,567
Do. for Revenue...	85,637	3,07,257	74,396	2,72,705	— 11,241	— 34,552
Revenue stores	57,098	1,14,147	58,971	1,21,407	+ 1,873	+ 7,260
Live stock	6,230	56,369	8,188	77,078	+ 1,958	+ 20,709
Rents, &c.	.....	18,694	.....	22,463	.....	+ 3,769
Total ...	1,877,465	1,56,25,555	2,096,852	1,77,44,520	+ 219,887	+ 21,18,965

The noticeable increases under "General Merchandise" occurred in the traffic in cotton raw, grain and pulse, oil-seeds, salt and sugar, the increases in quantity carried and in the earnings being 7,545 tons and Rs. 1,03,836, 118,538 tons and Rs. 14,71,701, 59,577 tons and Rs. 2,09,833, 2,046 tons and Rs. 25,137, and 15,100 tons and Rs. 94,222 respectively. The increase in cotton, raw, was due chiefly to larger exports to Bombay, that in grain and pulse to the scarcity of food-grains in the N.-W. P. and Oudh in the last quarter of the year, that in oil-seeds to larger exports to Europe, and that in salt and sugar to ordinary fluctuations.

The quantities of the principal commodities carried during 1894 and 1893 will be found in the following table :—

	1893.	1894.	Difference.
	Tons.	Tons.	Tons.
Coal and Coke carried for the public and foreign railways	7,609	9,272	1,663
Cotton, raw...	47,428	54,973	7,545
Cotton, manufactured	36,141	38,636	2,495
Drugs and Chemicals	2,216	2,247	31
Dyes and Tans	11,271	11,951	680
Grain and Pulse	520,111	638,649	118,538
Hides and Skins	5,770	6,718	948
Horns	56	124	68
Jute	20,260	23,746	3,486
Lac	359	828	469
Leather, manufactured	1,052	1,526	474
Liquors	3,684	3,617	—67
Metals	27,277	28,949	1,672
Oils	8,718	8,497	—221
Oil-seeds	293,404	352,981	59,577
Opium	4,139	4,592	453
Paper and Pasteboard	716	1,276	560
Provisions	44,582	48,063	3,481
Railway Plant and Rolling Stock carried for the public and foreign railways	22,250	17,368	—4,882
Salt	211,118	213,164	2,046
Saltpetre, &c.	10,032	11,310	1,278
Silk, raw	299	213	—34
Silk Piece-goods		52	
Spices	12,888	15,837	2,949
Stone and Lime	21,739	19,412	—2,327
Sugar	136,439	151,539	15,100
Tea	972	931	—41
Timber	18,348	22,864	4,516
Tobacco	13,427	14,167	740
Wool, raw	6,539	7,457	1,856
Wool, manufactured		938	
All other articles of merchandise	120,636	128,787	8,151
Total ...	1,609,480	1,840,684	231,204

PÁLANPUR-DEESA RAILWAY—*(Metre Gauge).*

This line was opened for traffic on 8th November 1893. The working results of the transactions of 1894 were as follows:—

Gross earnings	Rs.	37,544
Working expenses	„	14,399
Net earnings	„	23,145
Percentage of working expenses to earnings	„	38·35
Train mileage	T. miles.	15,295
Receipts per train mile	Rs.	2·45
Expenses do.	„	0·94
Net receipts do.	„	1·51
Open miles	Miles.	17·28
Receipts per open mile	Rs.	2,172
Expenses do.	„	833
Net receipts do.	„	1,339
Percentage of net earnings on total Capital outlay ...	„	5·79

The working expenses of this line were charged at the same percentage of the gross earnings as prevailed on the Rajputana-Malwa Railway system generally.

SOUTHERN MAHRATTA RAILWAY SYSTEM—*(Metre Gauge).*

General results.

	1893.		1894.		DIFFERENCE.	
	No.	Amount.	No.	Amount.	No.	Amount.
		Rs.		Rs.		Rs.
Open mileage ...	1,554·87	...	1,556·24	...	+1·37	...
Mean open mileage	1,512·29	...	1,556·24	...	+43·95	...
Gross earnings ...	...	78,20,038	...	79,87,447	...	+1,67,409
Working expenses	...	46,63,770	...	52,49,852	...	+5,86,082
Net earnings ...	...	31,56,268	...	27,37,595	...	—4,18,673
Passenger traffic .	5,835,664	28,40,350	6,656,213	29,60,570	+820,549	+1,20,220
Goods traffic ...	924,351	45,76,730	925,831	45,50,018	+1,480	—26,712
Train miles ...	3,028,224	...	3,235,033	...	+206,809	...

The increase of 1·37 miles in the open mileage is due to 3·03 miles pertaining to the East Coast Railway (from point 0·36 east of Tadepalli to Bezwada) having been worked over by the Southern Mahratta Railway and to the removal of the Southern Mahratta Railway line (1·66 miles) from point 0·36 east of Tadepalli to Kistna Canal (the old terminus of the Southern Mahratta Railway) from the 1st January 1894.

The increase of 43·95 miles in mean mileage worked during 1894 is due to the same cause as above and to the opening to traffic of the Dodballapur-Hindupur Section, a length of 38·69 miles, on the 17th September 1893.

The gross earnings increased from Rs. 78,20,038 to Rs. 79,87,447 in 1894, or by Rs. 1,67,409 only, while the working expenses increased by Rs. 5,86,082, thereby causing a decrease of Rs. 4,18,673 in the net earnings.

The increase in the number of passengers carried and in the earnings therefrom amounted to 820,549 and Rs. 1,20,220 respectively.

This improvement is due chiefly to the increase in the mean mileage worked and to the establishment of through communication between Guntakal and Bangalore on the 17th September 1893, and with the East Coast and the Nizam's Guaranteed Railways *vid* Bezwada on the 1st January 1894.

In the tonnage of goods carried, there has been an increase of 1,480 tons, and in the earnings a decrease of 26,712 rupees.

The noticeable increases under General Merchandise occurred in the traffic under the following commodities :—

	Tons.	Rs.
Coal	4,519	20,359
Cotton, Manufactured...	2,170	33,445
Dyes and Tans	6,415	42,056
Liquors	2,485	24,314
Oil-seeds	20,388	61,749
Salt	3,916	28,374
Sugar	8,163	57,275
Timber	5,318	20,061
Tobacco	3,430	20,102

and the more important decreases in the following articles :—

		Tons.		Rs.
Cotton, Raw ...	... Increase	883	Decrease	41,144
Grain and Pulse ...	... Decrease	101,642	„	4,72,707

The increase under Coal is due to large bookings of Singareni coal from Bezwada to Goribidnur and Dharmavaram and *viâ* Dharmavaram for the South Indian Railway and Messrs. Arbuthnot and Co. The increase under Cotton Manufactured is principally due to heavy inward bookings *viâ* Guntakal, Poona and the Portuguese Frontier.

The increase in Dyes and Tans is chiefly due to the business done in turmeric and tanning bark at Kolhapur, Sangli Road, Bellary and Nandyal Stations.

The increase in Liquors is due to large quantities of toddy booked from Munirabad, Hospet and Belgaum Stations.

The increase in Oil-seeds is partly due to heavy bookings of Linseed from Nandyal and Kurnool Road Stations and partly to earthnuts having been included under other "Oil-seeds" during the greater part of the first half of 1893.

The increase in Salt is due to large bookings from the West of India Portuguese Railway *viâ* the Portuguese Frontier.

The increase in Sugar is due to heavy bookings from Sangli Road to stations on the G. I. P. Railway *viâ* Poona, and from *viâ* Bezwada to Vinukonda and Goribidnur.

The increase in Timber is due to large bookings from Devarayi, Alnavar and Gunji to Hubli, Gadag and Bellary Stations.

The increase in Tobacco is due to large consignments booked form Narasaraopet, Sangli Road and Ashta Road Stations.

The increase in tonnage of Cotton Raw arises probably from a change in the conditions of carriage, but the receipts therefrom show a falling off in bookings to foreign railways *viâ* Hotgi, Poona and the Portuguese Frontier.

The decrease under Grain and Pulse is due to a falling off in the bookings of wheat to Bombay *viâ* Mormugão and other food-grains *viâ* Bangalore, chiefly from stations on the Mysore State Railway.

The principal fluctuations in the working expenses were increases as under :—

	Rs.
Maintenance of Way, Works and Stations ...	2,73,069
Locomotive Expenses	1,02,857
Carriage and Wagon	77,922
Traffic Expenses	80,661
General Charges	40,127
Special and Miscellaneous Expenditure	14,045.

The increase under Maintenance of Way, Works and Stations is due chiefly to the introduction of the revised scale of salaries for engineers with effect from 1st January 1894, to the payment of exchange compensation allowance to certain officers, to the heavier charges for ballasting and renewal of sleepers, to outlay on additional waterways on the Kistna District, to painting the bridges over

the Kistna river on the Gadag and Poona districts, to more extensive general repairs to buildings and staff quarters, and to greater number of ballast trains run on the Kistna, Mysore and Hubli districts than in the previous year.

The increase under Locomotive Expenses is chiefly due to a greater number of engines having undergone heavy repairs, to renewals of tube plates, to payment to the West of India Portuguese Railway of approximate charges for the haulage of Southern Mahratta Railway trains over the Braganza Ghat from 1st July 1893, and to carriage of a greater quantity of coal than in the previous year.

The increase under Carriage and Wagon Expenses is chiefly due to fitting Jones' buffers to a greater number of coaching and goods vehicles, and to heavier repair and renewal charges than in the previous year.

The increase under Traffic Expenses is chiefly due to the introduction of the revised scale of salaries for Traffic officers from 1st January 1894 and to payment of exchange compensation allowance to certain officers with effect from 1st April 1893, to greater consumption of oil and other stores for extra night train service, to additional train mileage worked, to depreciation of stock of printed forms, and to additional expenditure in connection with the expenses at joint stations.

The increase under General Charges is principally due to the acting arrangements during the late Agent's absence on furlough, to payment of exchange compensation allowance to Mr. Campbell and to the Personal Assistant to the Agent, to the extra rate of pay of the Police Superintendent chargeable to the Railway, and to augmentation of the Police at Bellary and in the Anantapur district. The increase under Special and Miscellaneous Expenditure is principally due to payment of law costs in connection with the prosecution of the Station Master of Walhe and of commission for the renewal of £ 255,000 worth of 3½ per cent. debentures at 3 per cent.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

The Revenue expenditure for the year 1894 on an open mileage at the close of the year of 380·21 miles was 57·29 per cent. of the gross earnings, yielding a net revenue of Rs, 8,52,487.

The gross traffic earnings for the year amounted to Rs. 19,95,843, and the expenditure to Rs. 14,43,356, leaving net earnings of Rs. 8,52,487, this sum being Rs. 36,221 less than the net earnings of 1893.

The gross earnings were made up as under :—

	Rs.
Coaching	10,65,430
Goods	8,88,872
Telegraph	16,605
Sundries	24,936

The coaching earnings show an increase of Rs. 46,831. The goods revenue shows a decrease of Rs. 68,946, and the telegraph and sundries, a decrease of Rs. 11,971.

The Revenue expenditure amounted to Rs. 11,43,356, or 57·29 per cent. of the gross earnings against 56·22 per cent. in 1893.

The percentage on total earnings of the several heads of Revenue expenditure as compared with 1893 are given in the following table :—

	1893.	1894.
Maintenance...	21·04	20·23
Locomotive expenses	14·15	14·46
Carriage and Wagon expenses ...	2·52	2·90
Traffic expenses	8·92	10·26
General charges	8·07	9·80
Miscellaneous charges	1·52	0·36
	56·22	57·29

The net revenue, Rs. 7,91,335 (exclusive of the Jetalsar-Rajkot Railway), gives a percentage of dividend of 4·55 per cent. on the total capital outlay to end of 1894, Rs. 1,73,65,593. The shares of the different States in the net revenue and the percentages on their capital outlay are as follows :—

	Net Revenue.	Percentages.
	Rs.	
Bhavnagar share	5,43,372	7·65
Junagad share	50,988	1·41
Gondal-Porbandar share... ...	1,98,387	2·99

The capital outlay to end of the year, the net earnings and percentage of net earnings of the year on the Jetalsar-Rajkot Railway are Rs. 14,99,605, Rs. 61,152, and 4·07, respectively.

Departmental Expenditure.

Maintenance.—The expenditure under this head in 1894 was Rs. 4,03,813, against Rs. 4,27,135, showing a decrease of Rs. 23,322.

Locomotive.—The Locomotive expenses amounted to Rs. 2,88,653 against Rs. 3,06,007 in 1893, giving an average cost per train-mile of annas 8·01 against annas 8·16, and per 1,000 gross ton-miles of Rs. 3·16 against Rs. 321 in 1893.

The consumption of coal during the year amounted to tons 5,502·58 against tons 5,891·69. The average cost per ton comes to Rs. 22·13 against Rs. 21·09 in 1893. The consumption per train-mile and cost per train-mile were lbs. 26·73 against lbs. 24·43, and annas 3·38 against annas 3·41.

The coal premium for the year was Rs. 5,391 against Rs. 5,185, and the amount accounted for during the year was Rs. 5,977 against Rs. 4,527. The increase is due to the increased rate of coal as compared with 1893.

Carriage and Wagon Expenses.—The expenses under this amounted to Rs. 57,923 against Rs. 54,717 in the previous year. The vehicle-miles run by home vehicles were 12,419,270 against 13,133,633. The average cost per 1,000 vehicle-miles run worked out to Rs. 4·66 against Rs. 4·17.

Traffic Expenses.—The total expenses amounted to Rs. 2,04,778 against Rs. 1,92,342 in 1893. The cost per train-mile and percentage on gross receipts are annas 4·96 and 8·92, respectively.

General Charges and Special and Miscellaneous Expenditure.—The percentage of the above on the gross earnings of the year compares as follows with the figures for 1893 :—

	1893.	1894.
General Charges	8·07	9·80
Special and Miscellaneous Expenditure ...	1·52	—0·36

The expenditure reviewed in the foregoing paragraphs is summarized and compared with similar figures in 1893 in the following table :—

	*1893.			1894.		
	Expenditure.	Percentage on Gross receipts.	Cost per Train-mile.	Expenditure.	Percentage on Gross Earnings.	Cost per Train-mile.
	Rs.	Rs.	Annas.	Rs.	Rs.	Annas.
Maintenance	4,27,134	21·04	11·84	4,03,813	20·23	11·20
Locomotive Expenses ...	2,87,222	14·15	8·00	2,88,653	14·46	8·00
Carriage and Wagon Expenses	51,073	2·52	1·44	57,923	2·90	1·60
Traffic Expenses	1,81,042	8·92	4·96	2,04,778	10·26	5·60
General Charges	1,63,791	8·07	4·48	1,95,478	9·80	5·44
Special and Miscellaneous ...	30,955	1·52	0·96	—7,289	—0·36	—0·16
Total ...	11,41,221	56·22	31·68	11,43,356	57·29	31·68

* These do not include figures for Jetalsar-Rajkot Railway.

Traffic Working—Coaching.

The gross earnings amounted to Rs. 10,65,430 against Rs. 10,18,599 in 1893, an increase of Rs. 46,831, or 4·60 per cent.

The unit mileage of passenger traffic compares as follows with previous years:—

Class.	Unit Mileage.						
	1888.	1889.	1890.	1891.	1892..	1893.	1894.
1st Class	147,476	202,584	229,195	195,276	210,216	319,793	335,462
2nd Class	655,352	959,916	1,141,577	1,259,941	1,224,940	1,549,810	1,875,956
3rd Class	32,258,962	43,670,952	51,263,770	50,659,189	49,935,749	62,616,636	64,989,626
Total of all Classes.	33,061,790	44,833,452	52,634,542	52,114,406	51,370,905	64,486,239	67,201,044

The total number of passengers carried was 1,886,656 against 1,592,144 in 1893, an increase of 294,512, or 18·50 per cent, which is explained below.

The increase in number and receipts in all classes is due to a large number of marriages in Kathiawar, His Excellency the Governor's visit to Kathiawar, and the Maharaja of Bhavnagar's tour over his territory.

The number of season-tickets sold was 55, realizing Rs. 584, against 154, and receipt Rs. 556 in the previous year. The increase in receipts was due to tickets for longer distances being sold.

The number of trains run in 1894 compare as follows with the year 1893:—

	1893.	1894.
Mail	730	965
Mixed	2,700	3,790
Passenger Special	70	44

The increase of 235 mail trains was due to the additional mails, up and down, which ran for a month-and-a-half in 1894 between Jetalsar and Dhola and Jetalsar and Rajkot.

The increase of 1,090 mixed trains was due to (1) the trains over the Jatalsar-Rajkot Railway being included in the report for 1894; (2) the trains which run between Bhavnagar and Junagad being numbered and counted as three trains; (3) additional trains run from 15th November for the busy season.

The decrease of 26 special trains was due to the fact that in 1893 a good many specials were run for the Maharaja of Bhavnagar on the occasion of the marriage of his son.

The following is a comparison of certain figures connected with coaching working:—

	1888.	1889.	1890.	1891.	1892.	1893.	1894.
Average Earnings per Train-mile... Rs.	2·26	2·59	2·65	3·02	2·99	3·51	3·37
Average No. of Units in a Train—							
1st Class ... ...Nos.	0·64	0·75	0·73	0·72	0·77	1·10	1·06
2nd Class ... ... „	2·87	3·54	3·65	4·67	4·51	5·35	5·94
3rd Class ... ... „	141·09	161·08	163·75	187·53	183·75	215·97	205·62
Total Passenger Units	144·60	165·37	168·13	192·92	189·03	222·42	212·62
Other Coaching Traffic ... ...Tons	0·70	0·70	0·77	0·67	0·78	0·89	0·85
Average No. of Vehicles in a Coaching Train...							
1st Class ... ...Nos.	1·13	1·23	1·33	1·35	1·40	1·44	1·40
2nd Class ... ... „	1·32	1·43	1·42	1·61	1·61	1·54	1·57
3rd Class ... ... „	9·97	10·42	11·39	11·98	11·12	11·46	11·44
Others ... ... „	0·57	0·40	0·49	0·61	0·66	0·77	0·76
Brakes ... ... „	2·50	2·51	2·65	2·79	2·81	2·59	2·63
Total ... ... „	15·49	15·99	17·28	18·34	17·60	17·80	17·80
Average Cost of hauling a Coaching Train mile ... . Rs.	1·19	1·36	1·46	1·88	1·99	1·76	1·75
Passenger Train-mileage per Mean Mile open... ... ...Nos.	1,153	989	939	809	814	869	841
Gross Passenger Earnings per Mean Mile open... ... ... Rs.	2,622	2,560	2,487	2,442	2,432	3,055	2,836

Goods Traffic.

The receipts amounted to Rs. 8,88,872 and in tons 230,466 (excluding Railway material) against Rs. 9,57,818 and in tons 226,226 in the previous year, showing a decrease in receipts of Rs. 68,946, or 7·20 per cent., and increase in weight of 4,240 tons, or 1·87 per cent. The principal staple to which the decrease is due is cotton, raw, Rs. 1,05,652, due to a smaller production of cotton in Kathiawar. In a lesser degree, decreases occurred in jute, oil, oil-seeds, provisions, and railway plant and rolling stock.

Increases occurred in the following staples, principally in grain and pulse, Rs. 18,520; timber, Rs. 26,882; and also in coal and coke, metals, salt, spices, stone and lime, sugar and tobacco.

The following is a comparison of certain figures connected with goods working:—

	1888.	1889.	1890.	1891.	1892.	1893.	1894.
Average Weight of a goods Train—							
Freight ... Tons.	54·07	61·22	62·88	62·50	60·81	58·31	62·45
Dead Weight ... „	112·88	111·93	116·06	114·02	114·24	119·04	118·12
Total ...	166·96	173·15	178·94	176·52	175·05	177·35	180·57
Average Load of a Goods Vehicle (including loaded and empty) ... Tons.	2·16	2·47	2·45	2·48	2·45	2·27	2·45
Average Load of a Loaded Goods Vehicle ... „	3·17	3·59	3·76	3·58	3·48	3·24	3·43
Average Receipts per Goods Train-mile ... Rs.	3·39	3·07	2·84	3·23	3·27	3·37	3·42
Average Cost of Hauling a Goods Train-mile. „	1·70	1·87	1·92	2·36	2·52	2·07	2·11
Average Receipts per Ton-mile ... ... Pies.	12·03	9·62	8·68	9·93	10·34	11·11	10·50
Average Cost of Hauling per Ton-mile ... „	6·05	5·86	5·87	7·26	7·97	6·82	6·48
Goods Train-mileage per Mean Mile Open . Nos.	786	738	745	580	663	852	685
Gross Goods Earnings per Mean Mile Open. Rs.	2,662	2,265	2,117	1,876	2,169	2,872	2,338

The receipts and tonnage of Railway material carried for construction purposes compared as follows with 1893:—

	Tons.	Rs.
1893	3,914	2,655
1894	10,763	7,077
Increase ...	6,849	4,422

The increase was due to the carriage of a large quantity of construction material, chiefly in connection with the Raidhra Bridge on the Jetalsar-Porbandar Section.

These figures represent traffic over the Bhavnagar-Gondal-Junagad-Porbandar and Jetalsar-Rajkot Railways together, and the figures of 1893 only for the former Railway.

Through Booking by Sea vid Bhavnagar Bandar.—The steamer service between Bombay and Bhavnagar Bandar continued during 1894, from 1st January to 30th June and from 13th October to 31st December. The earnings for the period amounted to Rs. 85,892, as given below:—

Coaching.

Gross Earnings	... Rs. 18,797
Total Number of Passengers ...	... „ 10,606

Goods.

Gross Earnings	... Rs. 67,095
Tons of Goods carried ...	... „ 23,259

Morvi Railway—(2′ 6″ *Gauge*).

The mean mileage worked including the Aji Bridge Extension opened for traffic on the 6th August 1894 and which effected a junction between this and the Jetalsar-Rajkot Railways at Rajkot was 94·36 miles against 94 miles of the previous year.

There was a slight decrease of Rs. 2,470 in the gross receipts which amounted to Rs. 3,20,348 against Rs. 3,22,818 of the previous year.

The working expenses amounting to Rs. 1,77,681 against Rs. 1,77,085 of the previous year show a slight increase of Rs. 596 and thus resulted in a decrease of the net receipts which amounted to Rs. 1,42,667 against Rs. 1,45,733.

The number of passengers carried increased from 269,314 to 284,521, but the earnings decreased from Rs. 2,17,169 to Rs. 2,14,869.

This appears disproportionate, but it is partly due to over eight thousand passengers carried during this year for a short distance of 5 miles between Morvi and Rafaleswar on account of a fair at the latter place, the receipts realized being Rs. 600 only, and partly to the special trains of some of the Chiefs of Kathiawar run during the previous year between Wadhwan and Rajkot on the occasion of His Excellency the Governor's visit to open the Rajkot Jubilee Hall. The special trains added largely to the earnings with comparatively but a small number of passengers.

The tonnage of goods carried decreased from 24,198·26 to 21,984·60, and the earnings from Rs. 1,00,829 to Rs. 98,950.

The noticeable decreases in goods occurred in cotton, stone and lime and timber; the decreases in the quantity carried and in the earnings being 392·34 tons and Rs. 3,548, 2,963·49 tons and Rs. 3,860 and 175·90 tons and Rs. 1,538 respectively.

The noticeable increases were in coal, metals, and oil-seeds, the increases in the quantity carried and in the earnings being 440·61 tons and Rs. 1,792, 143·61 tons and Rs. 1,102 and 1,215·60 tons and Rs. 3,656 respectively.

The working expenses show a slight increase of Rs. 596 during the year.

The principal fluctuations were an increase of Rs. 4,937 under Maintenance of "Way, Works and Stations" and decreases of Rs. 4,108 under "Locomotive", and Rs. 1,773 under "Traffic" expenses.

The increase under the Maintenance of "Way and Works" was chiefly due to heavy repairs and renewals of Permanent Way, and to increased outlay on ballasting necessitated by the unprecedented fall of rain in the year.

The decrease noticed above under "Locomotive expenses" is chiefly due to the smaller quantity of coal consumed owing to less train miles during the year, and improved engine working, and that under Traffic was due chiefly to less charges against delivery and collection of goods.

The other variations are unimportant.

Chapter VIII.—Rates and Fares.

(For the calendar year ending 31st December 1894.)

G. I. P. Railway System—(*Standard Gauge*).

The following are the principal alterations in the year 1894 over the G. I. P. Railway:—

		Prior to 1894.	Alteration in 1894.
	Goods.		
1	Kaiphal or Kaiphal-nuts from Bombay to *viâ* Itarsi to Agra Fort	14·14	9·72
	Agra Cantonment	14·14	9·74
	Viâ do.	14·14	
	Viâ Agra Junction	14·14	9·73
	Cawnpur and *viâ*	14·14	9·75

		Prior to 1894.	Alteration in 1894.
	Goods—continued.		
	To stations between Hatras and Aligarh ...	Varying from 13·67 to 13·09	Varying from 8·96 to 8·73
	„ stations on the Jhansi-Agra section ...	14·49	13·76 to 10·12
	„ stations on the Jhansi-Cawnpur section ...	14·49	14·16 to 10·21
2	Sulphur or Gunduck in consignments of not less than 160 maunds, at owner's risk, from Bombay *viâ* Itarsi to—		
	Agra Fort	14·14	9·72
	Agra Cantonment and *viâ*	14·14	9·74
	Viâ Agra Junction	14·14	9·73
	Cawnpur and *viâ*	14·14	9·75
	To stations between Hatras and Aligarh *viâ* Itarsi and Khandwa	Varying from 13·67 to 13·09	Varying from 9·34 to 8·73
3	Saltpetre from Gwalior to Rutlam—		
	In consignments of 160 maunds and over ...	8·03	5·00
	To Ujjain do. do. ...	8·03	5·93
4	Coal for the public and other Railways—		
	In consignments of not less than 10 tons ...	5·00	4·05
	Do. of less than 10 tons ...		7·02
	Do. on capital accounts... ...	4·05	3·51
5	Printed Forms, bound or unbound, and other printed matters in consignments of not less than 160 maunds, at owner's risk, from Bombay *viâ* Itarsi to—		
	Agra Fort	19·28	14·16
	Agra Cantonment and *viâ*	Varying from 19·32 to 19·29	Varying from 14·19 to 14·16
	Viâ Agra Junction	19·26	14·16
	Cawnpur and *viâ*	19·44	14·06
	To stations on the Jhansi-Agra section ...	20·48	Varying from 19·67 to 14·64
	„ do. on the Jhansi-Cawnpur section ...	20·48	19·48 to 14·64
	To do. between Hatras and Aligarh ...	Varying from 18·85 to 18·24	13·45 to 12·84
6	Leather, common or rough, in bales in consignments of 200 maunds and over, booked between Bombay, Kurla and Dadar (*viâ* Itarsi) and the undermentioned stations—		
	To Agra Fort	14·16	9·72
	„ Agra Cantonment and *viâ*	Varying from 14·19 to 14·16	9·74
	„ *Viâ* Agra	14·16	9·73
	„ Cawnpur and *viâ*	14·06	9·75
	„ Stations between Hatras and Aligarh ...	Varying from 13·68 to 13·07	Varying from 9·34 to 8·73
7	Sulphuric Acid, packed as prescribed, from Bombay, *viâ* Itarsi to Agra Fort	O. R. 23·39 Ry. R. 27·47	19·28 23·36
	Agra Cantonment and *viâ*	O. R. 23·39 Ry. R. 27·52	Varying from 19·32 to 19·29 23·42 to 23·39
	Viâ Agra Junction	O. R. 23·33 Ry. R. 27·41	19·26 23·34
	Cawnpur and *viâ*	O. R. 25·89 Ry. R. 32·53	19·44 25·87
	To stations between Hatras and Aligarh ...	Varying from O. R. 22·63 to 22·05 Ry. R. 26·65 to 26·07	Varying from 18·36 to 17·79 22·41 to 21·83

		Prior to 1894.	Alteration in 1894.
	Goods—continued.		
8	Tea from Kathgadom to Bombay *vid* Bhajipur, Lucknow, Cawnpur and Itarsi	14·06	11·62
9	Coir, screwed, from Bombay *vid* Itarsi to Gwalior .	10·42	9·60
	Do. to Morar Road	10·42	9·60
10	Coir, unscrewed and unpacked, coir ropes, dates fresh, and dry kernels and copras—		
	To Gwalior	14·49	9·98
	„ Morar Road	14·49	9·97
11	Cotton Piece-goods, Thread, Twist and Yarn, from Bombay to stations between Dalauda to Mandal *vid* Khandwa—		
	Packed	Varying from 20·58 to 14·92	Varying from 19·66 to 14·46
	To stations between Neemuch and Mandal—		
	Unpacked	20·58 to 20·04	19·96 to 19·05
12	Cotton Piece-goods mixed with silk from Bombay to stations between Neemuch and Mandal *vid* Khandwa	28·61 to 24·78	27·84 to 23·79
13	Silk Twist from Bombay to stations between Harkiakhal and Mandal *vid* Khandwa	28·61 to 20·04	27·99 to 19·05
14	Silk Piece-goods from Bombay to stations between Dharhur and Mandal *vid* Khandwa... ...	40·61 to 24·78	40·31 to 23·79
15	Full-pressed cotton from *vid* Hotgi to Cawnpur *vid* Itarsi	14·02	9·83
16	Grain from Agra Fort, Agra Cantonment and *vid*, and *vid* Agra Junction to Kalyan *vid* Itarsi ...	7·33	5·20
17	Through class rates between Bombay and Bezwada and *vid* Wadi	.....	To make it agree with the rates *vid* Southern Mahratta Railway.
18	Class rates between Bombay and Bangalore City and between Poona and Bangalore City *vid* Raichur, Guntakal and the Hindupur extension ...	.....	Do. do.
19	Lime or Chunam in full wagon loads of not less than 270 maunds, at owner's risk, from Jubbulpore and *vid* to Bombay	6·22	4·
20	Timber in scantling for construction of Rolling Stock for East Coast Railway from Bombay to *vid* Wadi	10·	6·
21	Gum, at owner's risk, to Bombay *vid* Itarsi—		
	From Gwalior	13·91	9·73
	„ Morina	13·86	9·72
22	Grain and common Seeds from Agra Fort and *vid* Agra Junction to Nagpur *vid* Itarsi ...	7·33	7·08
23	Machinery in consignments of not less than 81 maunds from Bombay to *vid* Khandwa for Neemuch	10·63	10·48
24	Vacuum Oil from Bombay to Bowringpet *vid* Raichur	14·44	7·86
25	Cotton, pressed, classes A and C, from Neemuch to Bombay *vid* Khandwa	13·54	12·85
26	Potatoes in consignments of not less than 160 maunds, at owner's risk to Bombay *vid* Itarsi—		
	From and *vid* Cawnpore	9·75	5·54
	„ „ Agra Cantonment	9·74	5·55
27	Grain and common Seeds from Agra to stations between Jubbulpore and Gadarwara... ...	Varying from 12·96 to 8·12	Varying from 5·40 to 4·84
28	Full-pressed Cotton from Yadagiri to Bombay ...	11·81	10·26

		Prior to 1894.	Alteration in 1894.
	Goods—continued.		
29	Cotton A Class or full-pressed in loads of not less than 270 maunds to Bombay *vid* Delhi, Agra and Itarsi—		
	From Umballa Cantonment	6·92	6·63
	„ Umballa City		
	„ Doroha		
	„ Ludhiana		
30	Potatoes from and *vid* Cawnpur *vid* Itarsi—		
	For traffic except from Furrakabad to stations between Nagpur and Mana	Varying from 10·71 to 10·46	9·81 to 6·43
	For traffic from Furrakabad to stations between Nagpur and Akola	10·74 to 10·46	9·69 to 5·56
31	Myrabollams from Kolhapur to Bombay *vid* Poona	7·03	4·99
32	Full-pressed Cotton from Shikohabad to Bombay *vid* Agra and Itarsi	8·28	8·03
33	Bran or Bhusa from Bombay to Madras *vid* Raichur	9·20	6·
34	Wool, loose (which is called waste or refuse woollen, N.-G. State Railway) to Bombay to Dadar *vid* Wadi—		
	From Hyderabad	24·85	Varying from 20·61 to 19·10
	„ Secunderabad		
	„ Moula Alli		
	„ Warangal		
	„ Kummamett		
35	Malted Barley in consignments of 340 maunds and over from *vid* Agra to Mettapolium *vid* Itarsi and Raichur	6·70	4·00
36	Cotton Twist, pressed packed, from Bombay to Tadpatri *vid* Raichur, at Railway risk on actual weight.	20·48	10·30
37	Grain and common Seeds in wagon-loads of not less than 270 maunds from certain stations named below on the Indian Midland Railway to *vid* Raichur by the Itarsi route—		
	Dholpur, Morena, Gwalior, Cawnpur and *vid*, Kalpi, Ait, Karur, Banda, Mohoba, Kulpahar, Jhansi, Lalitpur, Bina, Saugar, Khurai, and Bamora; and from Agra stations to *vid* Raichur for traffic to Madras	Varying from 6·70 to 3·58	3·43
38	Cotton and Wool, full pressed, Class A, from Bombay to Agra stations *vid* Itarsi	14·49	8·28

B. B. & C. I. Railway System—(*Standard, Metre and 2′ 6″ Gauges*).

(Includes all lines worked by the B. B. & C. I. Railway Company.)

Coaching Rates and Fares.—No alteration of any importance was made in the passenger fares and coaching rates during the year 1894.

Goods Rates.—The principal changes in goods rates made during the year were:—

(1) *Iron and Steel.*—The rate for iron and steel from any station in Bombay to and *vid* Delhi was reduced from Re. 0-14-0 to Re. 0-12-10 per maund with effect from the 1st March 1894 so as to equalize with the rate from Howrah to Delhi.

(2) *Cast Iron Pipes.*—Consequent upon the East Indian Railway having quoted a special wagon rate of Rs. 177 per wagon from Howrah to *vid* Gaziabad, it was found necessary to adjust the rate for pipes (cast iron), at owner's risk, from any station in Bombay to via Delhi for traffic to *vid* Gaziabad, and it was accordingly reduced from Rs. 236-4 to

Rs. 167 per broad-gauge 4-wheeled wagon, with effect from the 1st September 1894.

(3) *Cotton and Wool, pressed.*—With effect from the 1st October 1894, the classification for pressed cotton and wool was revised in conformity with alterations made on the neighbouring Railways.

(4) *Coal and Railway materials for construction.*—Agreeably to the orders of the Board of Directors, the Government scale of rates for coal, coke, and patent fuel, as promulgated in Government of India Circular No. 17, Railway, dated 30th October 1891, was adopted with effect from the 1st November 1894.

With effect from the same date, Foreign Railway stores and materials for *construction*, in full wagon-loads, were charged at 0·2 pies per maund per mile without terminal.

(5) On the opening through of the Godhra-Rutlam Railway, with effect from the 22nd October 1894, the goods rates were adjusted so as to secure to the *viâ* Rutlam route the traffic between Bombay and stations above the Holkar Ghats; the traffic between Bombay and stations below the Ghats, *i.e.* from stations Kalakund to Ajanti being allowed to continue to take the Khandwa route.

Southern Mahratta Railway System—(*Metre Gauge*).

Coaching Fares.—The 3rd class fare was reduced from $2\frac{1}{2}$ pies to 2 pies, over the Poona Branch, the Castle Rock-Guntakul Section of the Main Line and the Kolhapur State Railway, with effect from 1st January 1894. This change made the 3rd class fare over the Southern Mahratta Railway system uniform.

Third class return tickets at less than double fare were abolished from the above date in consequence of the above mentioned reduction.

Goods Rates.—(1) From 1st of June 1894 extra charges for bookings *viâ* Mormugão of 3 pies per maund and Rs. 2 per wagon were quoted. (2) From 1st October 1894 telescopic wagon and maund rates were quoted for certain articles and the ordinary special class rate was increased from $\frac{1}{4}$ to $\frac{1}{3}$ pie per maund per mile. (3) The ordinary goods class rates were adjusted as far as possible (within the minimum sanction) in comparison with the broad gauge route.

Numerous other minor changes were made during the year in the goods rates.

Bhavnagar-Gondal-Junagad-Porbandar Railway—(*Metre Gauge*).

(Includes the Jetalsar-Rajkot Railway.)

No important changes were made during the year in the rates and fares. A few changes in the classification of goods were made in order to assimilate it with the classification prevalent on the B. B. & C. I. Railway.

Morvi Railway—(2′ 6″ *Gauge*).

Coaching.

Luggage and Treasure (for public) rates have been assimilated with those of the B. B. & C. I. Railway with effect from 10th July 1894.

The class nomenclature on this Railway has been altered from Special, Upper, and Lower, to first, second, and third with effect from 1st September 1894 and the fares for ordinary passenger accommodation made as under:—

First class ...	...	12 pies per mile per head.	
Second class...	...	6	do. do.
Third class ...	...	3	do. do.

Free allowance on passengers' luggage—

	Md.	Seers.
First class	... 1	20
Second class	... 0	30
Third class—By Mail in through booking ...	... 0	20
Otherwise	... 0	15

With effect from 30th September 1894 the rates for conveyance of horses, ponies, donkeys, mules and cattle in local booking only have been revised as under :—

	Rs.	a.	p.
For the first animal per mile	0	2	0
Every additional animal when conveyed together for the same sender or consignee per animal ...	0	1	0
The lowest charge for one animal on total distance ...	2	8	0
The lowest charge for two or more animals on total distance	5	0	0

The following charges for reserving State Saloons and officers' carriages for the use of the public were introduced on this Railway with effect from 30th September 1894 :—

State Saloon—Four-wheeled Saloon	...	6 annas per mile.
Bogie Saloon ...	...	8 „ „
„ Carriage ...	...	6 „ „
Officers' carriages—Bogie Saloon	...	12 „ „
Four-wheeled Saloon	...	5 „ „

Charges for the provision of Special Trains for high officials of Government and for the haulage of carriages reserved for their use when travelling on duty by rail have been adopted on this Railway with effect from 1st November 1894.

Goods.

With effect from 1st February 1894, salt booked from Morvi to and *vid* Rajkot in consignments of 162 maunds and over is charged at the following rates :—

	Rs.	a.	p.
Morvi to Rajkot	0	1	5
Morvi to *via* Rajkot for booking to Stations on Jetalsar-Rajkot Railway	0	1	8
Morvi to *via* Rajkot for booking to Stations on Bhavnagar-Gondal-Junagad-Porbandar Railway beyond Jetalsar Junction	0	1	6

With effect from 7th November 1894, castor seeds in consignments of 60 tons and over from Morvi to Bombay by sea *vid* Bhavnagar Bandar are charged at a through rate of Re. 0-4-6 (including lighterage) per maund between Morvi and Bombay (Prince's Dock).

With effect from 15th December 1894, stones in train loads for distances over 15 miles are charged at the rate of 9½ pies per ton per mile and for 15 miles and under at 10 pies per ton per mile without any terminal charge.

Chapter IX—Miscellaneous.

Persons employed.

(For the official year ending 31st March 1895.)

During the year the officers present for duty were :—

Government Supervision and Control.

Secretary to the Government of Bombay, Railway Department, and Consulting Engineer for Railways—Lieut.-Colonel F. Firebrace, R. E. (on leave from 7th April 1894; retired from 1st October 1894).

Lieutenant-Colonel H. O. Selby, R. E., acting, from 7th April 1894; confirmed with effect from 1st October 1894.

Under Secretary to Government, Railway Department, and Deputy Consulting Engineer for Railways—Major H. O. Selby, R. E., till 6th April 1894.

Mr. R. C. Dyson, acting, from 7th April 1894; confirmed with effect from 1st October 1894.

Deputy Consulting Engineers for Railways :—
Mr. C. H. C. Bickerton.
Mr. J. E. Dallas, returned from leave, 24th November 1894; left on transfer to Assam, 20th March 1895.
Mr. J. Willcocks, on leave from 5th May 1894.
Mr. R. C. Dyson, F.C.H.
Mr. J. Adam, from 26th April 1894.
Lieut. W. D. Waghorn, R.E., from 6th July 1894.
Examiner of Guaranteed Railway Accounts, Bombay—Mr. J. Lightfoot, from 1st April to 27th October 1894.
Major C. R. Hoskyn, R. E., from 28th October 1894.
Deputy Examiners of Guaranteed Railway Accounts, Bombay :—
Mr. G. W. Sweet.
Mr. A. Conley.
Examiner of Railway Accounts, Dharwar—Major E. A. Waller, R. E.

Heads of Departments of each Railway.

G. I. P. Railway Company.

Bombay.

Agent—Mr. G. A. Barnett, C.I.E. (on leave from 21st April to 11th November 1894).
Mr. H. Conder, acting, from 21st April to 11th November 1894.
Auditor—Mr. S. Gore Browne (on leave from 7th April 1894 to 7th February 1895.)
Mr. C. Newborn, acting, from 7th April 1894 to 7th February 1895.
Chief Engineer—Mr. H. Wenden.
General Traffic Manager—Mr. H. Conder.
Mr. E. W. Keily, acting, from 21st April to 11th November 1894.
Locomotive Superintendent—Mr. R. L. Trevithick.
General Storekeeper—Mr. A. King.
Telegraph Superintendent—Mr. G. R. Webb.
Superintending Surgeon—Dr. W. Kay.
Superintendent of Police (Poona)—Mr. H. Scannell.

B. B. and C. I. Railway Company.

Bombay.

Agent—Mr. I. O'Callaghan, acting, up to 24th August 1894.
Major H. D. Olivier, R. E., assumed charge on 25th August 1894.
Chief Auditor and Accountant—Mr. J. O'Connell.
General Traffic Manager—Mr. I. O'Callaghan.
Mr. C. A. R. Crommelin, acting, up to 24th August 1894.
Chief Engineer—Mr. H. I. B. Hargrave.
Traffic Manager—Mr. C. A. R. Crommelin.
Mr. D. ff. Powell, acting, up to 24th August 1894.
Locomotive and Carriage Superintendent—Mr. E. B. Carroll (on leave from 25th May to 25th August 1894).
Mr. E. S. Luard, acting, from 25th May to 25th August 1894.
Chief Storekeeper—Mr. S. A. Duigan.
Telegraph Superintendent (Surat)—Mr. J. Franklin.
Chief Medical Officer—Dr. A. H. Deane.
Superintendent of Police—Mr. C. A. B. Beatty.

Ajmere.

Engineer-in-Chief—Mr. W. Harvey (on leave from 1st May to 29th December 1894).

Mr. C. V. MacIvor, acting, from 1st May to 29th December 1894.

Traffic Superintendent—Mr. J. Conder.

Locomotive Superintendent—Mr. F. N. Gütersloh.

Carriage and Wagon Superintendent—Mr. J. J. Adler.

Deputy Storekeeper—Mr. G. R. Spencer (on leave from 19th May to 6th December 1894).

Mr. R. F. Goode, acting, from 19th May to 6th December 1894.

Medical Officer (Bandikui)—Dr. W. Crofts.

Assistant Inspector-General of Police—Mr. R. E. Acklom.

SOUTHERN MAHRATTA RAILWAY COMPANY.

Dharwar.

Agent—Mr. J. Campbell (on leave from 12th September 1893, resigned).

Colonel J. G. Lindsay, R. E., acting, up to 20th December, and again from 22nd December 1894 to 21st February 1895.

Major J. Burn Murdoch, R. E., assumed charge on 21st December 1894; on leave from 22nd December 1894 to 21st February 1895.

Chief Engineer—Mr. Peter Scott, on three months' leave, from 18th March 1895.

Mr. A. R. Anderson, acting, from 18th March 1895.

Auditor—Mr. J. Partridge, on leave, from 3rd June to 2nd September 1894.

Mr. W. B. Wright, acting, from 3rd June to 2nd September 1894.

Traffic Manager—Mr. A. Muirhead.

Locomotive Superintendent (Hubli)—Mr. C. P. Whitcombe (on leave up to 18th May 1894).

Mr. G. W. Lindsley, acting, up to 18th May 1894.

Storekeeper (Hubli)—Mr. H. Weir.

Medical Officer (Hubli)—Dr. E. S. Chenai.

Superintendent of Police—Mr. H. J. Duggan (on leave up to 1st May 1894).

Mr. H. J. H. Henderson, acting, up to 1st May 1894.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY.

Ghadeehi.

Manager and Engineer-in-Chief—Mr. W. H. White (on leave, from 22nd October to 30th November 1894).

Mr. H. C. Knox, acting, from 22nd October to 30th November 1894.

Examiner of Accounts—Mr. W. C. Hickie (on leave, from 5th April to 4th July 1894).

Mr. H. Davies, acting, from 5th April to 4th July 1894.

Traffic Superintendent—Mr. C. Carroll.

Locomotive and Carriage Superintendent Mr. R. Wylie (on leave, from 31st July 1894).

Mr. Wedderburn, acting, from 31st July 1894.

Medical Officer—Dr. N. F. Bunshaw.

Superintendent of Police—Mr. E. V. Mackay.

MORVI RAILWAY.

Morvi.

Manager and Executive Engineer—Mr. W. H. White (on leave, from 22nd October to 30th November 1894).

Resident Engineer and Traffic Superintendent—Mr. C. P. White.

Locomotive and Carriage Superintendent—Mr. M. B. Burke.

Auditor and Accountant—Mr. Hormusji Dinshaw.

Schools.

(For the calendar year ending 31st December 1894.)

The following tables give information in connection with the attendance at the various schools and the receipts and expenses for the calendar year 1894 :—

G. I. P. RAILWAY.

Local and District Schools.

Name and Location of Schools.	Attendance.				Annual Contributions.			Remarks.
	Children.		Apprentices and Workmen.					
	Number on the Rolls.	Average daily Attendance.	Number on the Rolls.	Average daily Attendance.	Railway Grant.	Average School fees.	Total.	
					Rs.			
Church School, Jubbulpore	64	...	...	...	600	...	...	
Do. Harda	48	....	...	...	600	...	...	
Bishop's School, Nagpur	6	...	...	...	250	...	...	
St. Francis de Sales R. C. School, Nagpur ...	56	...	...	...	246	...	...	
St. Joseph's Convent School, Nagpur ...	48	...	...	...	171	...	...	

Railway Schools.

Name and Location of School.	Attendance.				Annual Contributions.				Annual Expenditure.	Average monthly Fees.
	Children.		Apprentices and Workmen.							
	Number on the Rolls.	Average daily Attendance.	Number on the Rolls.	Average daily Attendance.	Government Grant.	Railway Grant.	Average School-fees.	Total.		
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Railway School, Parel ...	16	15	...	...	.....	662 10 5	132 0 0	794 10 5	662 10 5	11 0 0
,, Igatpuri...	37	33	...	...	1,153 0 0	2,621 3 5	344 4 9	4,118 8 2	3,283 3 5	38 4 1
,, Bhusaval.	60	46	...	...	410 0 0	3,018 11 8	512 2 9	3,940 14 5	3,338 11 8	46 8 11
Joint Railway School, Khandwa	16	13	...	...	600 0 0	1,860 0 0	1,121 11 3*	3,581 11 3	1,860 0 0	34 10 2
Railway School, Lonavla...	67	52	...	...	874 0 0	2,971 3	819 10 6	4,664 14 3	3,541 3 9	74 8 3
,, Sholapur...	46	29	...	...	332 0 0	1,503 14 7	256 14 0	2,092 12 7	1,723 14 7	25 11 0
,, Shahabad.	25	18	...	...	235 15 0	942 6 7	216 3 10	1,394 9 5	1,092 6 7	21 9 11

* The fees paid by G. I. P., R. M. and non-Railway Residents .. .. Rs. a. p. 415 10 6
Rajputana-Malwa Railway's proportion of expenses for the year 1893 ... ... 706 0 9

Total ...1,121 11 3

B. B. & C. I. Railway.

Local and District Schools.

Name and Location of School.	Attendance.				Annual Contributions.			Remarks.
	Children.		Apprentices and Workmen.					
	Number on the Rolls.	Average daily Attendance.	Number on the Rolls.	Average daily Attendance.	Railway Grants including Boarding.	School-fees including Boarding.	Total.	
					Rs.	Rs.	Rs.	
St. Xavier's High School, Esplanade	2	2·00	...	...	39	39	78	
Cathedral Boys High School, Fort	3	2·75	...	...	157	345	502	
Cathedral Girls' School, Fort	3	2·66	...	...	250	497	747	
St. Joseph's Convent School, Bandora... ...	2	1·83	...	...	220	220	440	
Convent Girl's School, Lower Máhim... ...	4	4·00	...	...	84	84	168	
Convent Boarding School, Parel	6	4·66	...	...	256	241	497	
A. D'Silva's Anglo-Portuguese School, Dadar.	1	1·00	...	...	12	12	24	
Bombay Education Society's Schools, Byculla.	9	8·00	...	...	759	795	1,554	
Taylor's High School, Poona	7	6·08	...	...	634	1,139	1,773	
Elphinstone Middle School, Esplanade ...	1	0·42	...	...	8	8	16	
St. Mary's College, Byculla	4	3·00	...	...	411	463	874	
Lawrence M. Asylum, Murre	1	1·00	...	...	90	150	240	
Victoria Jubilee Technical Institute, Byculla.	1	1·00	...	...	18	18	36	
St. Peter's Boys High School, Mazagon ...	3	2·71	...	...	137	394	531	
Do. Girls do.	3	2·75	...	...	330	330	660	
Indian Female Normal School Institution, Girgaon	2	0·92	...	...	24	49	73	
Boys and Girls High School, Wellesley, Naini Tal	2	0·75	...	...	68	176	244	
Anglo-Indian School, Bandora	4	4·00	...	...	168	...	168	
Total ...	...	...	...	...	...	...	...	

Railway Schools.

Name and Location of School.	Attendance.				Annual Contributions.				Annual Expenditure.
	Children.		Apprentices.						
	Number on the Rolls.	Average daily Attendance.	Number on the Rolls.	Average daily Attendance.	Government Grant.	Railway Grant.	School-fees.	Total.	
					Rs.	Rs.	Rs.	Rs.	Rs.
Railway School, Parel	42·09	35·84	...	...	879	2,111	1,525	4,515	2,234
Railway School, Bulsar	12·45	12·45	...	...	...	...	126	126	290*
Railway School, Ahmedabad	55·27	56·07	...	...	582	1,200	625	2,407	2,603†

* Excess expenditure met from School funds.

† Do. do. balance in hand.

Rajputana-Malwa Railway.

Local and District Schools.

Name and Location of Schools.	Attendance.				Annual Contributions.			Remarks.
	Children.		Apprentices and Workmen.					
	Number on the Rolls.	Average daily Attendance.	Number on the Rolls.	Average daily Attendance.	Railway Grant.	School fees.	Total.	
					Rs.	Rs.	Rs.	
Deccani School, Ajmere	17·91	17·87	...	...	131	132	263	
Bengali School, Ajmere	10·33	9·37	...	...	98	98	196	
Parsi School, Ajmere	12·25	10.43	...	...	420	117	537	
Anglo-Vernacular School, Abu Road ...	98·10	83·30	...	...	569	644	1,213	
Edalji Pestonji School, Mhow	70·00	53·33	...	...	481	481	962	
Anglo-Vernacular School, Bandikui ...	100·00	80·00	...	...	530	128	658	
Dayanand Ashram Anglo-Vedic School, Ajmere	124·58	124·18	...	...	600*	400	1,000	* Out of Fine Fund.
Mission Day School, Delhi	7·5	4·09	...	...	164	245	409	

Railway Schools.

Name and Location of School.	Attendance. Children. Number on the Rolls.	Attendance. Children. Average daily Attendance.	Attendance. Apprentices. Number on the Rolls.	Attendance. Apprentices. Average daily Attendance.	Annual Contributions. Government Grant.	Annual Contributions. Railway Grant.	Annual Contributions. School-fees.	Annual Contributions. Total.	Annual Expenditure.	Remarks.
					Rs.	Rs.	Rs.	Rs.	Rs.	
Railway School, Mount Abu ...	59·00	56·00	...	...	...	13,681	6,323	20,004	20,736	The excess of expenditure over receipts was met partly from fees recovered from children of non-Railway employés and partly from other sources.
Do. Abu Road ...	25·91	25·71	...	...	...	271	622	893	893	
Do. Ajmere... ...	91·72	68·6	...	...	1,200	600	1,703	3,503	3,380	
Railway Night School, Ajmere...	...	...	39	34	...	888	...	888	856	
Railway School, Neemuch ...	24·00	22·30	...	...	360	433	571	1,364	1,440	Excess met from balance in hand.
Joint Railway School, Khandwa.	20·18	20·10	...	...	...	706	132	838	838	
Railway School, Bandikui ...	40·27	29·71	...	...	1,200	...	835	2,035	2,276	Do. do.
Do. Sirsa	29·33	29·03	...	...	558	116	712	1,386	1,386	
Do. Kasganj ...	8·25	6·04	...	...	...	252	179	431	388	

Southern Mahratta Railway.

Railway Schools.

Name and Location of School.	Attendance. Children. Number on the Rolls.	Attendance. Children. Average daily Attendance.	Attendance. Apprentices or Workmen. Number on the Rolls.	Attendance. Apprentices or Workmen. Average daily Attendance.	Annual Contributions. Government Grant.	Annual Contributions. Railway Grant.	Annual Contributions. Average School-fees.	Annual Contributions. Total.	Annual Expenditure.
Southern Mahratta Railway.					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Railway School, Hubli	31	26	...	...	.....	600 0 0	462 15 6	1,062 15 6	1,122 9 1
Do. Dhárwár	23	17	...	...	279 0 0	1,025 0 0	210 0 0	1,514 0 0	1,385 0 0
Mysore State Railway.									
Railway School, Bangalore... ...	23	11	...	...	.....	370 0 0	112 0 0	482 0 0	525 0 0

Bhavnagar-Gondal-Junagad-Porbandar Railway.

Railway Schools.

Name and Location of School.	Attendance. Children. Number on the Rolls.	Attendance. Children. Average daily Attendance.	Attendance. Apprentices and Workmen. Number on the Rolls.	Attendance. Apprentices and Workmen. Average daily Attendance.	Annual Contributions. Government Grant.	Annual Contributions. Railway Grant.	Annual Contributions. Average School-fees.	Annual Contributions. Total.	Annual Expenditure.
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Railway School, Jetalsar	34	24·13	...	...	239 0 0	300 0 0	603 2 6	1,442 2 6	1,484 2 0

Volunteers.

(For the official year ending 31st March 1895.)

The following statement shows the enrolled strength and the number of efficients in each Railway Volunteer Corps on the 31st March 1895:—

Corps.	Enrolled Strength.	Efficients. Officers.	Efficients. Non-Commissioned Officers.	Efficients. Volunteers.	Efficients. Total.	Non-efficients.	Sergeant Instructors, 1st and 2nd class.	Drill Instructors.	Head-quarters.
G. I. P. Railway Volunteer Rifle Corps	1,124	31	181	910	1,122	2	10	2	Bombay.
B. B. & C. I. Railway Volunteer Rifle Corps, 1st Battalion ...	557	21	81	423	525	32	5	1	Do.
Do. do. Reserve...	29	1	1	23	25	4	...	...	Do.
F. Company, 1st Battalion, (B.-G.-J.-P. Railway.)	72	3	5	62	70	2	1	...	Ghadechi.
Morvi Railway... ...	4	...	1	2	3	1	1	...	Do.
Second Battalion, (R. M. Railway)	978	32	110	826	968	10	10	...	Ajmere.
Southern-Mahratta Railway Volunteer Rifle Corps ...	662	3	51	592	646	16	5	...	Hubli.

Fuel Consumption.

(For the calendar year ending 31st December 1894.)

G. I. P. Railway System—(*Standard Gauge*).

The coal used during the year on the different sections of the G. I. P. Railway was obtained from the following sources :—

On the Konkan District (Bombay to Karjat and Bombay to Kasara).	(*a*) English, Umaria large and nuts, Singareni unscreened ; (*b*) Japanese ; (*c*) Bengal sea-borne, and (*d*) Patent fuel.
On the Bhore Ghat (Karjat to Lonavli) ...	English, Singareni unscreened, and Bengal sea-borne.
On the Thull Ghat (Kasara to Igatpuri) ...	English, Umaria large, and Bengal sea-borne.
On the South-East Line (Lonavli to Shahabad).	Umaria large, Singareni (*e*) screened and (*e*) unscreened, and Bengal sea-borne.
On the Dhond and Manmad Section ...	Singareni unscreened.
On the North-East Line (Igatpuri to Nandgaon).	English, (*f*) Narbada, Umaria (*g*) large and (*g*) nuts, Bengal-Nagpur Coal Company's and Bengal sea-borne.
On the North-East Line (Nandgaon to Bhusaval).	English, Narbada, Umaria large and nuts, (*h*) Warora and Bengal-Nagpur Coal Company's.
On the North-East Line (Bhusaval to Khandwa).	English, Narbada, Umaria large and nuts, Warora and (*i*) Bengal-Nagpur Coal Company's.
On the North-East Line (Khandwa to Jubbulpore).	Narbada, and Umaria large and nuts.
On the section Bhusaval to Nagpur ...	Narbada, Umaria large and nuts, Warora and Bengal-Nagpur Coal Company's.
On the section Wardha to Warora ...	Warora.
On the Khamgaon Section	Bengal-Nagpur Coal Company's.
On the Amraoti Section	Bengal-Nagpur Coal Company's.

(*a*) From Rs. 16-12 to Rs. 17-6 ; (*b*) Rs. 12-0 ; (*c*) from Rs. 12-8 to Rs. 13-8, and (*d*) from Rs. 17-0 to Rs. 17-8 per ton, delivered into boats in Bombay.
(*e*) Delivered into wagons at Yellandu on N. G. S. Railway, screened at Rs. 6-0, unscreened at Rs. 4-8 per ton.
(*f*) Delivered into wagons at Mohpani at Rs. 6-0 per ton.
(*g*) Delivered into wagons at Umaria large at Rs. 4-3 and nuts from Rs. 2-2 to Rs. 2-4 per ton.
(*h*) Delivered into wagons at pit's mouth at Rs. 4-8 per ton.
(*i*) Delivered into wagons at pit's mouth at Rs. 3-0 per ton.

B. B. & C. I. Railway System—(*Standard Gauge.*)

(Includes the Gaekwar's Petlad and the Godhra-Rutlam Railways.)

Statement showing the total consumption of various descriptions of coals on the B. B. & C. I., Gaekwar's Petlad and the Godhra-Rutlam Railways during the year ended 31st December 1894.

Description of Coal.	Quantity consumed, in Tons.	Average price per Ton at place of delivery.	Remarks.
		Rs. a. p.	
English Coal—			
Ferndale steam coal	15,333	18 6 9	
Powell's Dufferyn steam coal ...	22,436	18 8 0	
Nixon's Navigation do. ...	3,657	19 8 6	
North's do. do. ...	495	18 3 8	
Australian Wallarah do. ..	5,735	15 9 0	
Insoles Lowmain No. 3 Small Rhondda Smith coal	1,136	18 3 5	
Washed furnace coke	396	24 4 10	
Country Coals—			
Sanctoria	1,474	13 10 8	
Deshurgarh	98	13 6 6	Received in 1893.
Barrakur	481	14 13 6	Do.
Sitarampur	28	14 13 6	Do.
Japanese	474	12 9 8	Do.
Salanpore	2,825	15 2 0	
Mixed coals (Sanctoria, Jerriah and Belhorri)	1,093	13 14 0	
Gas coke	89	19 0 0	Purchased from Bombay Gas Company.
Total Tons ...	55,750		

Gaekwar's Dabhoi Railway—(2′ 6″ *Gauge*).

Statement showing the total consumption of various descriptions of Coals during the year ended 31st December 1894.

Description of Coal.	Quantity consumed in Tons.	Average price per Ton at place of delivery.	Remarks.
		Rs. a. p.	
English coals—			
Ferndale steam coal	301	18 6 9	
Nixon's Navigation steam coal ...	199	19 8 6	
Powell's Dufferyn do. ...	160	18 8 0	
Country coals—			
Salanpore	16	15 2 0	
Mixed coals (Sanctoria, Jerriah and Belhorri)	52	13 14 0	
Total Tons ...	728		

Rajputana-Malwa Railway System—(*Metre Gauge*).

(Includes the Gaekwar's Mehsana and the Palanpur-Deesa Railways).

The descriptions of fuel used were :—

Country coal	Tons	63,650·94
English „	„	33,081·53
Wood in terms of coal	„	370·62
Total ...	Tons	97,103·09

Country coal was delivered at Agra and Cawnpore from Bengal, Borrea and Barrakur Coal Companies at the average rate of Rs. 15-8 and Rs. 13-2-4 per ton respectively, and Australian coal was delivered at Sabarmati at Rs. 20-15 per ton, and English coal delivered at Sabarmati and Khandwa at an average rate of Rs. 24 and Rs. 26-5-0 per ton respectively. Wood was locally purchased at an average rate of Rs. 8-6-0 per 100 cubic feet, and unserviceable sleepers fit for fuel supplied by the Engineering Department at Rs. 5 per 100 cubic feet.

Country coal was used between Agra, Cawnpore, Delhi, Ferozepore and Ajmere, and Australian coal between Abu and Sabarmati and Bandikui, and English coal between Ajmere, Sabarmati and Khandwa. Firewood and unserviceable sleepers were used over the whole line for lighting up engines.

Southern Mahratta Railway System—(*Metre Gauge*).

The decriptions of fuel used during the year on the several sections of the Southern Mahratta Railway (including the Mysore and Kolhapur State Railways are shown below :—

Name of Section.	Stations.		Description of Fuel.
	From	To	
Poona Branch	Londa	Poona	Firewood.
Kolhapur State Railway	Miraj	Kolhapur ...	
Main Line	Castle Rock ...	Gadag	
Harihar Branch	Hubli	Harihar	
Mysore State Railway	Harihar	Nanjangud ...	Singareni coal.
Do	Bangalore ...	Frontier (Hindupur).	
Main Line	Gadag	Bezwada... ...	
Guntakal-Hindupur Section ...	Guntakal ...	Mysore Frontier (Hindupur).	
Bijapur Branch	Gadag	Hotgi	

Experiments were made on the Bijapur Branch with a view to the use of unscreened Singareni coal instead of the screened steam coal usually supplied by the Hyderabad Deccan Company; the results were so satisfactory that a six months' trial on the same section of the line under ordinary working conditions was arranged for—and this also proving successful, the use of unscreened coal was extended to all coal-burning sections of the Southern Mahratta Railway in the second half of 1894; Singareni coal was also introduced in place of firewood on the Mysore State Railway in the early part of the year owing to the firewood supplied from the Mysore forests being not only expensive in the first instance but also of very indifferent quality.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

(Includes the Jetalsar-Rajkot Railway.)

The coal used during the year was Cardiff (Powell's Dufferyn) for Locomotive purposes and West Hartley for workshop purposes, both purchased at the rate of Rs. 21-8 per ton.

MORVI RAILWAY—(2' 6" *Gauge*).

The coal used during the year was Cardiff Welsh coal, and this is found to be the best coal for the small locomotives of this line.

Railway Police.

(*For the calendar year ending 31st December 1894.*)

G. I. P. RAILWAY SYSTEM WITHIN THE BOMBAY PRESIDENCY.

Mr. H. Scannell was in charge of the G. I. P. Railway Police throughout the year.

During the year under report under the head of "Real Crime," the number of cases was 249 against 272 and 343 in the two preceding years, a decrease of 23 and 94, which steady decrease has been going on since 1891, and is reported to be due in 1894 partially to the decrease in the number of thefts in the Bombay Island and mainly to the improved working of the Police by the introduction of a better educated class of men in the ranks of the force and the better supervision of suspicious characters travelling on the line. Of serious crimes there was no case of murder; but the one case referred to in the last report as pending from 1893 still remains with the Magistrate for disposal. There was one case of attempted murder at Jalgaon, and the accused was sentenced by the Sessions Court, Dhulia, to 5 years' rigorous imprisonment. There was no case of culpable homicide nor of dacoity. Of the two cases of the latter of 1893, one, a petty case, in which Rs. 2 only was stolen, remains undetected, while the other was detected and the accused sentenced to 5 years' rigorous imprisonment. There were only 3 true cases of robbery during the year under report against 5 of the previous year. Two occurred at gate-houses, which the Police are powerless to prevent, and one occurred at Jeur Station. None have been detected. House-breaking cases have increased from 6 to 9; and those of receiving stolen property from 6 to 12. The number of pending cases under the Indian Penal Code as compared with 1893 has decreased from 42 to 21, the credit of which is due, the Superintendent says, to the punctuality of the Magistrates. True cases for disposal under the Indian Penal Code were 281, of which 137 remained undetected contrasted with 297 and 120 respectively. The Police dealt with 450 cases, and of these the number excluded was 98 (of which 4 were maliciously false, 90 as false owing to mistake of fact or law, and 4 as non-cognizable) against 456 and 95. Instead therefore of there being a proportionate decrease in excluded cases there was an increase.

The total number of thefts was 231, of which 24 were pending from 1893. Thefts from goods-sheds and stations and persons show a decrease of 25. The percentage of convictions was, however, less and the Superintendent ascribes it to the bad working of the Police on the Dhond and Manmad line, in which district not a single conviction was obtained. The total amount of property

reported as stolen during the year under report was Rs. 24,085 against Rs. 18,982 in 1893. This increase is chiefly due to a large case of theft by British soldeirs on the 23rd December, when over Rs. 10,000 worth of property was taken. Recovery shows a decrease of 8 per cent. The percentage of cases in which property was recovered to cases in which it was stolen was 52·32 against 53·7 in the previous year.

The total number of non-cognizable crimes reported during the year under report again increased from 28 in 1893 to 57. In 1892 the number was 56. In connection with this year's cases in none were the Police employed to make enquiries, and 74 persons were actually brought up before Magistrates against 33 in the previous year. All were disposed of during the year; 55 were convicted, 9 acquitted and 10 discharged. The percentage of convictions rose from 57 in 1893 to 74 in the year under report.

The strength of the force remained the same as in 1893, *viz.* 606 men, and the cost was Rs. 1,38,052 against Rs. 1,29,212. The length of line supervised remained unchanged at 772 miles, but the number of stations increased by one (Mazgaon), making in all 124.

B. B. & C. I. Railway System.

Mr. Beatty was the Superintendent in charge throughout the year.

The total number of cases reported during the year 1894 was 277 as against 305 in 1893. Thirty cases as against 13 in 1893 were excluded, thus leaving 247 real coginzable cases as compared with 292 in the previous year. The decrease is ascribed principally to fewer cases under the Opium Act. Dealing with Indian Penal Code offences separately, for which the Police are directly responsible, their number rose from 141 to 146. The number of pending cases of all classes was 9 against 16 in 1893, and out of these 9 cases, 4 were under investigation by the Police and 5 before Magistrates. Under serious crimes there was only one case of murder which was committed on the line near Virar and in which the accused was sentenced to death by the Sessions Judge of Thána. There were again no cases of dacoity or robbery. House-breaking cases were 7 against 4 in 1893, 6 of which were disposed of within the year, but all six without being brought to trial.

Property was stolen in 140 cases during the year under report as against 129 in the previous year, and recovered in 100 as against 76, giving a percentage of 71·42 against 59 in 1893. The total amount of property stolen was Rs. 9,360 against Rs. 8,588 in 1893 and Rs. 6,501 in 1892. But of the total Rs. 9,360, Rs. 3,262 only was recovered, giving a percentage of 34·85 as compared with 57 and 50 in the two previous years. The low percentage of recovery the Superintendent ascribes to the non-recovery of property in four big thefts—two in the Surat District in which property worth over Rs. 1,900 was involved, and two in the Ahmedabad Division in which property worth Rs. 1,700 was involved. A satisfactory feature however is the recovery by the Railway Police of property worth over Rs. 20,334 for other districts as compared with Rs. 6,831 and Rs. 2,398 in the previous two years.

The total number of non-cognizable offences reported during the year within Railway limits was 86 against 67 in 1893, the increase being due to cases having been reported this year under certain sections of the Indian Penal Code, whereas in the previous year 67 cases were reported under the Railway Act alone. In only 28 cases against 51 in the preceding year were the Railway Police employed to make enquiries. In connection with the 86 cases reported, 107 persons against 74 in 1893 appeared before Magistrates. Out of these 75 were convicted, 18 acquitted and 13 discharged, and one was awaiting trial at the close of the year.

The force was during the year under report permanently increased by 1 officer and 9 men for duty on the second section of the Godhra-Rutlam Railway. There was also an addition to the length of line of 20 miles and of two stations, Jekot and Dohad, in consequence of the opening of this section. The length of line supervised was thus 619 miles, with 106 stations. The total permanent

strength of the force rose to 494, and the total cost for the year was Rs. 91,358 as compared with Rs. 88,909 in the preceding year.

Rajputana-Malwa Railway System.

Mr. Acklom was in charge of the office of Assistant Inspector-General, Rajputana-Malwa Railway Police, throughout the year.

The number of cases reported during the year was 1,038 against 1,179 in the previous year. The decrease in real crime occurred principally under the head of ordinary thefts, which numbered 615 against 713. There were 12 cases of cattle theft during the year, 11 of which occurred on the Godhra-Rutlam Railway and 2 were convicted, and out of cattle value Rs. 447 stolen, cattle value Rs. 222 was recovered. As to serious crimes there were no murders o homicides. There was one case of dacoity in which property of the value of Rs. 54 was carried off; it was committed at a gate-lodge in the Jeypore State and was not detected. In the two cases of robbery, the one on the Godhra-Rutlam Railway was struck off, while the other of property value Rs. 550 that was perpetrated on some passengers seated outside the station of Phalera at night remained undetected. Out of 83 cases of house-breaking that were reported, 55 occurred in the Native States of Rajputana and Central India and remained undetected. Of these 55, sixteen occurred in the Gwalior State and 15 in the Indore State.

The amount of property stolen during the year under report was Rs. 36,546 against Rs. 28,992. Including property stolen in pending cases, the total amount of property stolen was Rs. 38,402, of which Rs. 15,538, or 40·46 per cent. was recovered as compared with 39·29 per cent. in 1893. The total number of cases in which property was stolen was 720 against 811 in the previous year. Property was recovered in 487 cases, giving a percentage of 63·41 against 55·59 in 1893.

The number of non-coginzable offences was 105 during 1894, in 102 of which the Police were employed to make enquiries. In connection with these cases 172 persons were brought before Magistrates, of whom 127 were convicted, 12 acquitted, 31 were discharged, and 2 were awaiting trial at the end of the year.

The total force of the Rajputana-Malwa Railway Police, including the Godhra-Rutlam Railway Police, increased to 650 men, which includes the additional 5 head constables and 16 constables sanctioned during the year for the Deesa, Phalera and Mehsana Stations and for the Railway Stores at Ajmere, but excludes 23 chaukidars who were substituted in the vacancies of 23 constables. In addition there was a temporary establishment of 84 chaukidars. The total mileage supervised rose to 1,463 miles, and the number of stations to 204, inclusive of 10 on the Godhra-Rutlam Railway. The total cost of the force amounted to Rs. 1,35,014 as compared with Rs. 1,24,088 in 1893.

Southern Mahratta Railway System within the Bombay Presidency.

Mr. Duggan was in charge of the Police throughout the year except from the 5th March to the 1st May when Mr. Henderson held charge during the former's absence on privilege leave.

There were in all 211 cases reported during the year against 254 in the previous year. Including the 16 pending cases the total number of cases for disposal in 1894 was 227, of which 81 were excluded, 6 as maliciously false, 70 as false but not maliciously and 5 for other reasons. In 51 of the 81 cases the complainants were Railway employés. In 2 of the 6 cases excluded as maliciously false, the complainants were prosecuted, one of whom was convicted and fined Rs. 100 and the other discharged by the Magistrate on a point of law, as the complaint was not made to a Police officer but to the Station Master, who is not a public servant within the meaning of Section 182 of the Penal Code. Turning to more important crimes there was one case of dacoity as was the case in the previous year. A gang cooly made a complaint that he was assaulted by 6 persons on the Railway line between Sulebhavi and Suldhal Stations and property valued at Rs. 11 stolen, and that there were besides about 18 persons

hidden in the bushes. Enquiries, however, showed that the complaint was made because the complainant wished for a transfer from the isolated place on the line where he was posted for duty at the time. The result of the enquiries was reported to the First Class Cantonment Magistrate, Belgaum, who decided the complaint as false but not maliciously. There were 3 cases of robbery against 1 in 1893, all of which, however, were excluded as false but not maliciously.; two of them were reported by Railway employés. There were in all 9 cases of house-breaking reported during the year against 7 in the previous year, of which two were excluded, five remained undetected, one ended in conviction, and one was pending.

There were only 113 thefts reported during the year against 137 in 1893, but the number of real thefts was only 65 against 79 in the preceding year. All the thefts, 41, from goods-sheds and transhipment platform were detected and resulted in conviction. The total value of property stolen amounted to Rs. 8,522-9-7, including Rs. 148-3-3 of the previous year, which shows an increase of Rs. 2,542-4-10 over that of 1893 and is due to one case in which a specie parcel in transit valued at Rs. 6,200 was involved. In this case six persons were concerned, *viz.*, the shunting jamadar and the pointsman at Koregaon, and a head constable and three constables at that station, all of whom were convicted and sentenced to 6 months' rigorous imprisonment and a fine of Rs. 100 each. Of the total amount of property stolen 86·24 per cent. was recovered.

The number of non-cognizable crimes rose from 49 in 1893 to 64 in the year under report. In only 4 cases as against 11 in the previous year were the Police employed to make enquiries. In connection with these 64 cases 70 persons were brought up before Magistrates, of whom 60 were convicted, 7 acquitted and 3 discharged.

The mileage under supervision and the number of stations remained the same as at the end of 1893, *viz.*, 722 miles and 92 stations. Four constables were sanctioned during the year to accompany night trains, bringing up the total strength to 304. The total cost of the force was Rs. 64 701, against Rs. 64,797 in 1893.

Bhavnagar-Gondal-Junagad-Porbandar Railway.

Mr. E. V. Mackay was in charge of the Railway Police throughout the year.

The Police force consisted of 20 subordinate officers and 63 constables and men, total 83, the same as at the close of 1893. The total cost of the force for the calendar year amounted to Rs. 19,950 as compared with Rs. 20,253 in the previous year.

During the year under report 79 cases were reported to the Police, of which 8 were excluded by order of the Magistracy as not being offences. Of the remaining 71 cases 43 were sent up for trial with the result that 33 ended in conviction and 8 in acquittal; the remaining 2 were pending in the Magistrate's Court. The percentage of convictions to cases sent up for trial rose from 68 in 1893 to 76 for the year under report; the percentage of persons convicted to arrested rose from 63 to 66.

The total amount of property stolen during the year amounted in value Rs. 6,677, of which Rs. 5,421 was recovered, giving a percentage of 81·18 as compared with 26·31 in 1893.

There was no case of thuggee or dacoity during the year.

H. O. SELBY,
Consulting Engineer for Railways.

13th August 1895.

ADMINISTRATION REPORT

OF THE

RAILWAY DEPARTMENT,

BOMBAY,

FOR THE YEAR

1895-96.

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ADMINISTRATION REPORT

OF THE

RAILWAYS UNDER THE GOVERNMENT OF BOMBAY

FOR THE YEAR 1895-96.

The following tables give the lengths of the several lines of Railway under the control of the Government of Bombay during the year 1895-96. The Hyderabad-Umarkot Railway, a length of 59 miles, constructed by the Bombay Government as a provincial line is excluded from the tables as it is worked by the North-Western Railway and is directly under the control of the Director-General of Railways. Table I shows the lines grouped according to gauge, and Table II according to classification:—

TABLE I.

Gauge.	Railway.	Open for Traffic for any part of the year.	Under construction.	Surveyed or under Survey.	Classification.
		Miles.	Miles.	Miles.	
5' 6"	Great Indian Peninsula Railway.	1,286·93	...	...	Guaranteed.
	Dhond and Manmad Railway.	145·44	...	...	State Imperial, worked by Company.
	Khamgaon Railway	7·55	...	...	Native State, worked by Company.
	Amraoti do.	5·44	...	...	
	Wardha Coal do.	44·88	...	...	State Imperial, worked by Company.
	Bombay Baroda and Central India Railway.	438·78	...	...	Guaranteed.
	Patri Railway	22·12	...	...	State Imperial, worked by Company.
	His Highness the Gaekwar's Petlad Railway.	13·35	...	...	Native State, worked by Company.
	Godhra-Rutlam Railway ...	115·33	...	...	State Imperial, worked by Company.
	Rutlam-Nagda-Muttra Railway.	...	25·30	355·99	State Imperial.
	Nagda-Ujjain Railway ...	...	34·25	...	Native State, to be worked by Company.
	Muttra-Agra Railway ...	...	...	31·81	State Imperial.
	Muttra-Aligarh Railway ...	...	...	36·95	Do.
	Tapti Valley Railway—				
	Surat *vid* Nandurbar to Amalner.	...	...	162·47	Assisted Railway.
	Manmad *vid* Amalner to Jalgaon.	...	...	110·14	Not definitely known.
	Total 5' 6" Gauge ...	2,079·82	59·55	697·36	
Metre ...	Southern Mahratta Railway (including Bellary-Kistna Railway).	†1,045·03	...	...	State Imperial, worked by Company.
	Mysore Railway	296·00	...	...	
	Mysore-Nanjangud Railway .	15·25	...	...	Native State, worked by Company.
	Nanjangud-Gudalur Railway.	...	...	54·00	Native State.
	Guntakul-Mysore Frontier Railway.	119·50	...	...	State Imperial, worked by Company.
	Bangalore-Mysore Frontier Railway.	51·35	...	...	Native State, worked by Company.
	Kolhapur Railway	29·07	...	...	Do. do.
	Rajputana-Malwa Railway ...	1,122·25	...	...	State Imperial, worked by Company.
	Rewari-Ferozepore Railway ...	290·77	...	...	
	Cawnpore-Achnera Railway ...	261·00	...	...	
	Palanpur-Deesa Railway* ...	17·28	...	...	

* The Palanpur Darbar has contributed towards the cost. † Includes 2·99 miles of the East Coast Railway worked over.

Gauge.	Railway.	Open for Traffic for any part of the year.	Under construction.	Surveyed or under Survey.	Classification.
		Miles.	Miles.	Miles.	
Metre ...	Phalera-Rewari Railway ...	...	...	131·50	State Imperial.
	Ahmedabad-Dholka Railway.	...	...	32·00	(Unclassified.)
	Ahmedabad-Parantij Railway.	...	54·59	...	Assisted railway, to be worked by Company.
	Bhavnagar-Gondal-Junagad-Porbandar Railway.	333·46	...	...	Line owned and worked by Native State.
	Jetalsar-Rájkot Railway ...	46·23	...	...	Do.
	Rajkot-Jamnagar Railway ...	...	50·30	...	To be owned and worked by Native State.
	His Highness the Mahrana of Meywar's Oodeypore-Chitor Railway	60·31	...	...	Native State, temporarily worked by Company.
	His Highness the Gaekwar's Mehsana Railway	92·63	...	...	Native State, worked by Company.
	Do. Patan-Harij Railway.	...	...	23·00	Native State.
	Total Metre Gauge ...	3,780·13	104·89	240·50	
2′ 6″	Morvi Railway	94·36	...	...	Line owned and worked by Native State.
	His Highness the Gaekwar's Dabhoi Railway.	71·66	...	...	Native State, worked by Company.
	Vishwamitri-Padra Railway...	...	7·20	...	Native State, to be worked by Company.
	Padra-Jambusar Railway ...	...	...	22·61	
	Broach-Jambusar Railway ...	...	...	30·00	(Unclassified.)
	Bahadarpur-Songir Railway...	...	...	9·50	Native State.
	Baroda-Khakharia Railway ...	...	...	22·00	
	Rajpipla State Railway ...	...	19·73	...	
	Barsi Light Railway	...	21·75	...	Line owned and to be worked by a Company.
	Total 2′ 6″ guage ...	166·02	48·68	84·11	
	Grand Total, all gauges ...	6,025·97	213·12	1,021·97	

TABLE II.

Railway.	Gauge.	Open for Traffic.		Under Construction.		Surveyed or under Survey.	
		Miles.	Total.	Miles.	Total.	Miles.	Total.
Guaranteed—							
Great Indian Peninsula Railway ...	Standard	1,286·93	...	...	...	...	...
Bombay Baroda and Central India Railway	,, ...	438·78	...	...	...	...	...
Manmad *via* Amalner to Jalgaon	,, ...	...	...	...	...	110·14	...
			1,725·71		...		110·14
State Imperial, worked by Companies—							
Dhond and Manmad Railway	Standard	145·44	...	...	...	...	...
Wardha Coal Railway	,, ...	44·88	...	...	...	...	...
Patri Railway	,, ...	22·12	...	...	...	...	...
Southern Mahratta Railway (including Bellary-Kistna Railway)	Metre ..	1,045·03	...	...	...	...	...
Mysore Railway...	,, ...	296·00	...	...	...	...	...
Guntakul-Mysore Frontier Railway ...	,, ...	119·50	...	...	...	...	...
Rajputana-Malwa Railway	,, ...	1,122·25	...	...	...	...	...
Rewari-Ferozepore Railway... ...	,, ..	290·77	...	...	...	...	...
Cawnpore-Achnera Railway... ...	,, ..	261·00	...	...	...	...	...
Palanpur-Deesa Railway*	,, ...	17·28	...	...	...	...	...
Godhra-Rutlam-Railway	Standard	115·33	...	...	...	...	...
Rutlam-Nagda Muttra Railway ...	,, ...	...	...	25·30	...	355·99	...
Muttra-Agra Railway	,, ..	...	...	...	...	31·81	...
Muttra-Aligarh Railway	,, ...	...	...	...	...	36·95	...
Phalera-Rewari Railway	Metre ...	...	...	...	...	131·50	...
			3,479·60		25·30		556·25
Lines owned and worked by Native States—							
Bhavnagar-Gondal-Junagad-Porbandar Railway	Metre ...	333·46	...	...	...	...	...
Jetalsar-Rajkot Railway	,, ...	46 23	...	...	...	...	...
Rajkot-Jamnagar Railway	,, ...	...	...	50·30	...	...	...
Morvi Railway	2′ 6″.	94·36	...	...	...	...	...
			474·05		50·30		...
Lines owned by Native States and worked by Companies—							
Khamgaon Railway	Standard	7·55	...	...	...	...	...
Amraoti Railway	,, ...	5·44	...	...	...	...	...
His Highness the Gaekwar's Petlad Railway	,, ...	13·35	...	...	...	...	...
Nagda-Ujjain Railway	,, ..	...	...	34·25	...	...	...
His Highness the Gaekwar's Mehsana Railway	Metre ...	92·63	...	...	...	...	...
His Highness the Maharana of Meywar's Oodeypore-Chitor Railway ...	,, ...	60·31	...	...	...	...	...
Kolhapur State Railway	,, ...	29·07	...	...	...	...	...
Bangalore-Mysore Frontier Railway ...	,, ...	51·35	...	...	...	...	...
Mysore-Nanjangud Railway ...	,, ...	15·25	...	...	...	...	...
His Highness the Gaekwar's Dabhoi Railway	2′ 6″.	71·66	...	...	...	...	...
Rajpipla State Railway	,, ...	...	...	19· 3	...	...	...
Vishwamitri-Padra Railway ...	,, ...	...	...	7·70	...	...	...
Nanjangud-Gudalur Railway ...	Metre ...	...	...	...	...	54·00	...
Patan-Harij Railway	,, ...	...	...	...	...	23·00	...
Bahadarpur-Songir Railway ...	2′ 6″.	...	...	...	...	9·50	...
Baroda-Khakharia Railway	...	...	...	...	...	22·00	...
Padra-Jambusar Railway	...	...	...	...	...	22·61	...
			346·61		61·18		131·11
Assisted Lines to be worked by Company—							
Ahmedabad-Parantij Railway ...	Metre ...	...	...	54·59	...	...	...
Surat *via* Nandurbar-Amalner Railway ...	Standard	...	...	...	...	162·47	...
					54·59		162·47
Line to be constructed and worked by private Company—							
Barsi Light Railway	2′ 6″.	...	...	21·75	...	...	...
					21·75		
Unclassified—							
Broach-Jambusar Railway	2′ 6″.	...	...	...	...	30·00	...
Ahmedabad-Dholka Railway ...	Metre ...	...	...	...	...	32·00	...
							62·00

* The Palanpur Darbar has contributed towards the cost.

Chapter I.—General.

(For the official year ending 31st March 1896.)

Open mileage and extensions of line sanctioned.

The length of Railways under the control of the Government of Bombay (excluding the Hyderabad-Umarkot Railway which, though owned by this Government, is under the control of the Director-General of Railways) sanctioned at the end of 1894-95 was 6,106·18 miles, of which 5,965·66 miles were open for traffic on the 31st March 1895. Of the open mileage 2,079·82 miles were on the 5′ 6″ gauge, 3,719·82 miles on the metre gauge, and 166·02 miles on the 2′ 6″ gauge. Of the unopen mileage, which was under construction, 60·48 miles were on the standard gauge, 60·31 miles on the metre gauge, and 19·73 miles on the 2′ 6″ gauge. The construction of the following additional lines was sanctioned during 1895-96 :—

	Miles.
Ahmedabad-Parantij Railway (metre gauge)	54·59
Rajkot-Jamnagar Railway (metre gauge)	50·30
Barsi Light Railway (2′ 6″ gauge)	21·75
Vishwamitri-Padra Railway (2′ 6″ gauge)	7·20
Extension of the Mohpani Branch of the G. I. P. Railway ...	1·00

His Highness the Maharana of Meywar's Oodeypore-Chitor Railway (60·31 miles on the metre gauge) was opened for traffic during the year.

Accordingly on the 31st March 1896 the total length of lines open under the control of the Government of Bombay was 6,025·97 miles, *viz*, 2,079·82 miles on the standard gauge, 3,780·13 miles, on the metre gauge and 166·02 on the 2′ 6″ gauge); while a length of 60·48 miles on the 5′ 6″ gauge (which however has, on revision, been reduced to 59·55 miles), 104·89 miles on the metre gauge and 48·63 miles on the 2′ 6″ gauge remained to be finished. Work had also to be commenced on the extension of the Mohpani Branch of the G. I. P. Railway.

Important works completed and in progress.

On the *G. I. P. Railway*, during the year under review, the work of strengthening the old 30 feet girders was completed, and that of providing a uniform system of signalling arrangements throughout the main line was also practically completed. The fencing of the last portion of the Dhond and Manmad Railway was finished as also the renewal of the permanent way of the Khamgaon State Railway with the 69 lb. rails released from the main line. Work on the replacement of the bowstring girder of the Kali-Marchan Bridge was almost completed.

On the *B. B. & C. I. Railway*, of the three important works which were in hand last year, the doubling of the line between Itola and Baroda was completed and opened for traffic on the 7th June 1895, and the terminal station at Colaba was practically completed. Work on the new Administrative Offices near Church Gate Station has been proceeded with vigorously, and it is expected that they will be ready for occupation towards the end of next year. During the year the following additional important works were put in hand :—

Doubling of the main line between Virar and Dahanu and also between Amroli and Itola.

Renewal of the 60′ Warren girders by steel plate girders.

Providing an additional grain shed at the Carnac Bridge goods yard.

Constructing a line of Railway on 2′ 6″ gauge from Anklesvar to Pardi, 19·73 miles, on way to Nandod on account of the Rajpipla State.

Extension of the Dabhoi-Vishwamitri Line of the Baroda State to Padra, 7·25 miles.

Constructing a line of Railway on the metre gauge from Ahmedabad to Parantij and beyond to Ahmednagar, a distance of 54·59 miles.

On the *Rajputana-Malwa Railway* two additional spans of 40′ girders to the bridge in a 15′ bank at mile $\frac{532}{18}$ on the main line near Mehsana, mentioned in last report as in progress, were completed and opened for traffic. The "Realignment" between Fatehabad and Indore, mentioned in last report as in progress, was completed during the year and opened for traffic. Two additional 20 feet girder waterways to culvert at mile 11 chain 28 on the Agra Branch were sanctioned in December 1895 and work is in progress. The reconstruction of a bridge at mile 114 near Rudain Station on the Cawnpore-Achnera Railway has been sanctioned and work is in progress.

GREAT INDIAN PENINSULA RAILWAY COMPANY.

On the *Mehsana-Viramgam Branch* of His Highness the Gaekwar's Mehsana Railway, the abnormally heavy rainfalls for several preceding years had shown the necessity of extra waterway; 25 additional minor waterways were therefore built and certain lengths of bank raised during the year.

On the *Southern Mahratta Railway* System the joint station at Bangalore City was completed by the Madras Railway, except the covering in of the platforms; works for extending and remodelling the Southern Mahratta Railway portion of the yard are in progress.

Principal events.

Among the principal events which occurred during the year may be noticed :—

(1) The opening for traffic on the 1st August 1895 of His Highness the Maharana of Meywar's *Oodeypore-Chitor Railway*, a length of 60·31 miles; this line, which is on the metre gauge and which runs from a point near the Chitorgarh Station on the Rajputana-Malwa Railway to within a few miles of the town of Oodeypore, was constructed by the Meywar Darbar and is being temporarily worked by the B. B. & C. I. Railway Company; it is understood to be the intention of the Darbar to work the line through their own Agency as soon as the necessary rolling stock shall have arrived from England in this country and been erected.

(2) The commencement of work on the *Rajkot-Jamnagar Railway* :— The works in connection with this line, which is on the metre gauge, and the construction of which was sanctioned by Government in May 1895, were put in hand in January 1896, and to end of March 1896 a good start had been made in throwing up earth-work in banks and construction of bridges, both large and small. The line will, it is expected, be opened for public traffic by, or before June 1897. The line which, for the present, will be taken only as far as Jamnagar, is estimated to cost Rs. 23,61,138, or Rs. 46,941 per mile.

(3) The commencement of work on the Vishwamitri-Padra extension of His Highness the Gaekwar's Dabhoi Railway.

(4) The grant of a concession to Messrs. Killick Nixon and Company of Bombay for the formation of a Company for the construction of a Railway on the metre gauge from Ahmedabad to the town of Parántij and beyond to Ahmednagar, a distance of 54·59 miles; the line to be constructed with a rupee capital and on the "Branch line" terms promulgated by the Government of India. The Company was duly floated and the first sod was cut by His Excellency Lord Sandhurst, Governor of Bombay, on the 15th February 1896.

(5) The grant of a concession to the Barsi Light Railway Company of London for the construction, on one side of the existing road, of a Railway on the 2′ 6″ gauge from the Barsi Road Station of the G. I. P. Railway to the town of Barsi, a distance of about 21·75 miles. Work was commenced on the line in January 1896.

(6) Offer made (towards the close of the year) by Her Majesty's Secretary of State for India to the G. I. P. Railway Company for the construction of a line of Railway from Jalgaon to Amalner as part and parcel of the Great Indian Peninsula Railway. This offer has been accepted by the Board of Directors of the Railway Company.

(7) The conversion of Ujjain Station on the Rajputana-Malwa Railway into a junction station for the admission of the Rutlam-Ujjain and the Bhopal-Ujjain Railways; the station was opened for broad gauge passenger traffic on the 18th March 1896.

Chapter II.—Works completed and in progress.

(*For the official year ending 31st March 1896.*)

G. I. P. Railway System—(*Standard Gauge*).

(Includes the Dhond and Manmad, the Khamgaon, the Amraoti and the Wardha Coal State Railways).

All the work in connection with the new stations at Chinchpokli and Curry Road and with the new station and staff quarters at Kurla, which had remained unfinished at the close of last year, was completed.

The substitution of 82 lbs. rails in place of the old 68 and 69 lbs. rails was steadily continued; and the renewal of the permanent way of the Khamgaon State Railway with the 69 lbs. rails released from the main line was completed during the year. The work of providing an uniform system of out-door signals was practically completed throughout the main line.

The 25 miles of fencing remaining to be erected on the Dhond and Manmad Railway was almost completed at the end of the year and 4 miles of new teak sleepers were laid in the road of the Wardha Coal State Railway; in accordance with the terms of an agreement arrived at between Government and the Company.

Akola Station.—The remodelling of the station yard and construction of the new station building is being pushed on.

The renewal and strengthening of the girders that had been found defective in strength was continued with vigour.

Strengthening of 30′ girders, 431 spans.—All this work was completed at the end of the year.

B. B. & C. I. Railway type 60 feet girders, 36 spans.—All these have been replaced.

Waghur and Mannair type 62 feet girders, 16 spans.—Of these 12 spans have been strengthened and erected, *viz.*, Mannair 5 spans, Waghur 5 spans and Abna 2 spans, and work is in progress on the remaining 4 spans.

Chinni Creek type 100 feet girders.—Work on the Kali Marchan Bridge (mile 388·67 North-East Line) of 5 spans was almost completed at the end of the year. The Sangli Bridge, a single span of this type was fitted with the new girder and brought into use. Work on the Naktwa Bridge (also of one span) is being taken in hand.

Ehegaon Viaduct, Thull Ghat, 6 spans of 142 feet girders.—The best plan of strengthening the superstructure of this bridge is still under consideration.

Mund Viaduct, at mile 345¼, on the Nagpur Branch—Arrangements are in progress for carrying out the strengthening the girders of this viaduct immediately after the present rains.

Thana Creek, one span of 84 feet girders.—This bridge was damaged in 1894 by a girder in transit accidentaly falling on it. The work of lengthening the piers to carry new girders of a stronger type was taken in hand towards the close of 1894-95. The strengthened bridge was practically ready for use at the end of the year under report.

The Seena Bridge, 12 spans of 40 feet arches, at mile 268·18 South-East Line was washed away in September last by extraordinary floods in the Seena River; it was decided to rebuild it, as a girder bridge of 2 spans of 83 feet and 4 spans of 84½ feet. Also the Bori Bridge of 20 spans of 30 feet girders at mile 318, South-East Line, which was wrecked in the same way was being reconstructed by using 5 lengths of 9′ 0″ piles in accordance with plans designed by the Chief Engineer. Vigorous efforts were made by the Chief Engineer of the Railway and his staff to have the work of reconstruction of these bridges completed before the end of June 1896; their expectations have been realized, for the Bori Bridge was opened for traffic towards the end of May, and the Seena Bridge at the end of June 1896, thus completing a brilliant piece of work in an exceptionally short time. The Benisherur Bridge at mile 330·4, South-East Line, which was also partially damaged was being repaired.

Heavy protective works were constructed during the year in connection with the Mussuk Bridge at mile 327 (North-East Line), which had been reconstructed last year.

During the year sanction was accorded to the provision and fixing of interlocking apparatus at the proposed new Hancock Bridge and Mazagaon Signal Cabins—also to the construction of five tank wagons for the conveyance of petroleum oil in bulk.

During the year the Nerbudda Coal and Iron Company represented to the G. I. P. Railway Company the desirability of extending the Mohpani Branch to

B.B.&C.I. RAILWAY.
(Including the Rajputana Malwa Railway)
and LINES of Railways in Connection.
Scale 64 Miles to One Inch.
Lines worked by B.B.&C.I. Ry. Co.
B.B.&C.I. broad (5ft. 6in.) gauge lines.
Rajputana Malwa metre gauge.
B.B. the Gaekwar (2ft. 6in.) State line
Other completed lines.
Lines under construction.
Lines projected.
Lines projected by B.B.&C.I. Ry.
KASHMIR
NEPAL
RAJPUTANA
BOMBAY
CENTRAL PROVINCES
HYDRABAD
CENTRAL INDIA AGENCY
BOMBAY AGENCY
PUNJAB
OUDH
Gulf of Kutch
Gulf of Cambay
Mouths of the Indus
Rann of Kutch
KUTCH
KATTYWAR
PESHAWAR
KURREE
SRINAGAR
ROUMIA
RAWALPINDI
KALABAGHO
JHELUM
LAHORE
AMRITSAR
HOSHIARPUR
FEROZEPORE CANT
LUDHIANA
KALKA
UMBALLA
MONTGOMERY
MOOLTAN
BHAWALPUR
BIKANEER
DELHI
MEERUT
HARDWAR
LUCKNOW
CAWNPORE
ALLAHABAD
JODHPORE
AJMERE
NUSSEERABAD
KOTAH
BOONDEE
ODEYPORE
ABU ROAD
PALANPUR
AHMEDABAD
BARODA
SURAT
BROACH
BOMBAY
POONA
KARACHI
KELAT
QUETTA
SIBI
CHAMAN
INDORE
DEWAS
UJJAIN
BHOPAL
JABALPUR
NAGPUR
AKOLA
BHUSAWAL
MANMAD
KHANDWA
HOSHANGABAD
ITARSI
GWALIOR
JHANSI
BINA
KATNI
REWAH
Coal Fields
WARORA Coal Fields
McCORQUODALE & Co. LIMITED, MAP ENGRAVERS, PRINTERS &c. LONDON, N.W.

their new coal-field on the west. The proposal was accepted and the sanction of Government accorded to the construction of this extension, and work was about to be commenced at the close of the year.

B. B. & C. I. Railway—(*Standard Gauge*).

With the end of the year the work on the new terminal station at Colaba and the rearrangement of the yard was completed, and the station brought into use.

At the Carnac Bridge goods yard the present grain sheds have been extended, the goods platforms have been covered in, and an additional grain shed is being erected; these additions were found necessary to unload grain under cover during the rains, as in previous years the Railway had had to pay heavy claims for damage by rain.

The construction of the new Administrative Offices, opposite Church Gate Station, is proceeding fast: on the 31st March last the ground and first floors were nearly completed and one floor and dome remained to be done: these will take about a year to complete.

The recommendations of the Overbridges Committee of 1890 included the provision of foot overbridges across the B. B. and C. I Railway to the south of Grant Road Station. At the request of Government, three foot overbridges were taken in hand, one at south of the Marine Lines Station, another a little to the north of the Hindu cremation ground, in a line with the boundary of the Hindu and Islam Gymkhanas, and the third south of the Charni Road Station. The last one has been erected and was opened for public traffic on the 29th February 1896. The one to the south of Marine Lines Station has not yet been taken in hand, but work on the other one has been commenced.

At Grant Road, the former arrangement of going from one platform to the other by the French overbridge was found to be very irksome and has been discontinued. A foot overbridge has been erected connecting the up and down platforms, and some other alterations have been made in the down side station building.

Two sidings of the Dadar Junction have been extended southwards towards Parel on land obtained on loan from the G. I. P. Railway Company; this has been done in order to do away with shunting on the main line.

The line between Virar and Dahanu is being doubled. At the end of the year, the earthwork and ballasting was in hand; laying of permanent way had not been commenced.

The old Station at Udvada needed to be reconstructed. Advantage was taken of this to construct the new Station on a better and more convenient site a little to the south of the old Station. The work on the new Station was completed and the station opened for traffic on 1st January 1896.

The reconstruction of the Dhadhar Bridge, near Itola, was completed, and the bridge opened for traffic on the 15th May 1895.

The doubling of the line between Amroli and Itola was lately sanctioned The work is in hand.

The doubling of the line between Itola and Baroda, which was under construction last year, was completed, and the second line was opened for traffic on the 7th June 1895.

Certain alterations and additions in sidings, sheds and staff quarters were required at Godhra on account of the junction of the Godhra-Rutlam Railway being fixed there; at the end of the year many of the above had been finished, a few are in hand.

The Anand-Godhra Branch was originally laid on five pairs of pot sleepers to a 20-feet rail; the bearing was found unequal to heavy traffic coming from the Rutlam side; a sixth pair of pots is now being inserted. This Branch was fenced in with Euphorbia which is being gradually replaced by wire fencing.

The renewals of the 60′ Warren girders with steel plate girders has been commenced at many places; some of the bridges are completed; those between Amroli and Baroda are now in hand to allow of the heavy engines lately received, running over that length.

GODHRA-RUTLAM RAILWAY—(*Standard Gauge*).

The work of providing additional quarters for European and Parsi Firemen and Turners and additional menials' quarters at Rutlam is in hand.

RUTLAM-UJJAIN RAILWAY—(*Standard Gauge*).

Work on the Rutlam-Ujjain extension was prosecuted vigorously and the ine has already been opened. The rapid completion of this work reflects great credit on the Engineering staff.

GAEKWAR'S PETLAD RAILWAY—(*Standard Gauge*).

No work of any importance was carried out on this line during 1895-96.

RAJPUTANA-MALWA RAILWAY—(*Metre Gauge*).

During the year, four two-roomed staff quarters were provided at Phalera, and a reading room for native employés at Bandikui. Bogie weigh-bridges were also provided at Bandikui, Ajmere and Sabarmati.

At Ajmere a regular water-supply was arranged for, and additions and alterations made to, the Carriage and Wagon shops. An additional storing and office accommodation at the stores depôt was being provided. The concentration of point-levers at the station was completed.

On the Rewari-Ferozpore Section—a goods shed was constructed at Jaitu Station and quarters for the Permanent Way Inspector, and additional menials' quarters for the Locomotive Department and four two-roomed Drivers' quarters at Sirsa; at this station a new school-house and quarters for the school-mistress are also being provided; a siding was laid to Messrs. Fleming & Co's. Ginning Factory at Hissar. At Bhiwani arrangements for the supply of water were completed, and additions and alterations at the station are in hand. The water-supply at Raman and Bhatinda Stations being found to be precarious, additional reservoirs are being constructed at those stations. Additions and alterations are also being made to the siding accommodation at Baragudah, Kalanwali, Raman and Bhattu Stations.

On the Cawnpore-Achnera Line, certain portions of the Railway were fenced and quarters provided for a carriage examiner at Khasganj. Gangmen's huts are being constructed between Cawnpore and Khasganj. The local goods shed accommodation at Cawnpore is being extended and watering arrangements provided at Muttra. The North-Western Provinces Government having represented the necessity for a deep channel at the bridge over the Rudain Nala near the station of that name, it was decided to reconstruct the bridge—the work of reconstruction is in hand.

Designs and estimates for a Transfer Station at Cawnpore for Metre Gauge and a Goods Transhipment platform for interchange of traffic between the Indian Midland Railway and Metre Gauge lines were in hand. The proposals have since been submitted for the approval of the Government of India.

On the Málwa Section, the realignment of the Railway between Fatehabad and Indore was completed, while additional works are in hand at Ujjain Junction; also one block of 24 units' quarters for the Police, Latrine and conservancy arrangements and an institute at Rutlam, and a transhipment siding and platform and a siding for holding 10 coaching vehicles at Mhow.

On the Main Line, watering arrangements were completed at Falna. At Sojat Road additional quarters were provided for clerks and menials of the Locomotive Department and work is in hand on quarters for a Permanent Way Inspector. The demarcation of land permanently taken up on the Abu Division was completed and the Sojat Section is being reballasted. Additional waterway was given to the girder bridge at mile 532/18. At Abu Road the drainage of the station yard was completed and quarters are being provided for clerks of the Traffic Department and menials of the Locomotive Department as also for drivers. Two new goods offices were opened at Sabarmati; the goods platform is being extended, and a transhipment platform and siding provided at Mehsana.

Fifty miles of line were relaid with 50 lbs. steel rails during the year.

MAP
OF THE
SOUTHERN MAHRATTA RAILWAY
AND ADJACENT LINES

Scale of 64 Miles to an Inch

REFERENCES.

S.M.R. & W.I.P. lines open.
Do. Proposed.
Other Metre Gauge lines open.
Do. Proposed.
Broad Gauge lines open.
Do. Proposed.

Reduced to ½ Scale
Govt Photozinco Office, Poona 1895

Palanpur Deesa Railway—(*Metre Gauge*).

On the *Palanpur-Deesa Line*, a goods shed was provided at Deesa and additions and alterations to the road are in hand.

Gaekwar's Mehsana Railway—(*Metre Gauge*).

On *His Highness the Gáekwár's Mehsana Railway*, it was found that the waterway provided during construction was insufficient; 25 new waterways were built and certain lengths of bank were raised during the year.

Southern Mahratta Railway System—(*Metre Gauge*).

Estimates have been sanctioned for altering the spectacles of all distant signals so as to show red and green alternately, instead of red and white as at present. The work will be started on receipt of the modified description of spectacles for which an indent has been sent Home. The Agent, Southern Mahratta Railway Company, has been authorised to put in hand the work of counterweighting the arms of all Home and Distant signals, so that they may fly to danger in the event of any failure of the connections.

Stand-cocks have been provided on the platforms at all watering stations to supply drinking water to passengers.

Main Line.

(Portuguese Frontier to Bezwada, 509·97 miles).

Abnormal renewals of sleepers, notably on the section west of Dharwar were continued throughout the year. Arrangements have been made with the Local Forest Department for supplying sleepers of *Jamba* (in Burma called Pingadu) wood, and these are being put into the road as fast as they are delivered.

The Goods shed and siding accommodation at Alnawar, referred to in the last report, have since been completed.

The estimates for extensions to the Locomotive Workshops at Hubli, to which reference was made in the previous year's report, having now received the sanction of Government, the works are about to be started.

The bridges at miles 292·5 and 293·1 have now been reconstructed with additional waterway.

The doubling of the engine shed at Donakonda, as well as the erection of a number of additional staff quarters at this place and at Guntakal Junction, are nearing completion.

It having been finally decided that Tadepalli is to be the transhipment station for goods traffic between the Southern Mahratta, the East Coast and the Nizam's State Railways, proposals for permanent shed and siding accommodation at this place are now under consideration. Estimates have also been submitted for providing accommodation here for the running and Carriage Examining staff of this Railway. The question of providing at Bezwada Junction adequate permanent accommodation for the exchange of passenger traffic between the above Railways is engaging attention.

Poona Branch.

(Londa to Poona, 277·09 miles).

The replacement of all the "Kari" wood sleepers on the Alandi and Salpa Ghats has now been effected. Renewals were made of a number of teak half-round and square sleepers on the section north of Belgaum.

The additional water-ways and protective works near Jejuri (miles 243 to 264) referred to in last year's report, have been completed.

Additional waiting accommodation for 1st and 2nd class passengers has been provided at Wathar to cope with the Mahableshwar season traffic.

Mysore State Railway.

(Harihar to Nanjangud, 311·25 miles).

About 20,000 unserviceable teak and creosoted pine sleepers were renewed on this section during the official year under review.

The joint station building at Bangalore City has been completed by the Madras Railway except the covering in of the platforms. Works costing Rs. 1,22,000 for extending and remodelling the Southern Mahratta Railway portion of the yard are now in progress. A number of additional quarters for the staff were built during the year at this station and at Harihar.

Yeswantpur-Mysore Frontier Railway.

51·35 miles.

Sanction is still awaited to the estimates for earthwork and ballast required to complete this section.

Assistant Station Master's quarters have been sanctioned for each of the stations on this section, and the works have been started.

The permanent buildings and junction arrangements at Yeswantpur are on the eve of completion.

Guntakal-Hindupur Railway.

(Guntakal to Mysore Frontier, 119·50 miles).

Assistant Station Master's quarters at each of the stations on this line, as well as other traffic staff quarters, are now being built.

Bijapur Branch (Gadag to Hotgi, 173·08 miles).
Harihar Branch (Hubli to Harihar, 81·00 miles).
Kolhapur State Railway (Miraj to Kolhapur, 29·07 miles).

No special works worthy of comment were completed or in progress on these sections during the official year under report.

Bhavnagar-Gondal-Junagad-Porbandar Railway—*(Metre Gauge)*.

Includes the Jetalsar-Rajkot Railway.

During the year sidings were laid to the ginning factories at Botad, Shahpur and Junagad, and the siding accommodation at Ghadechi, Wadhwan Junction, Lathi, Kunkavav and Jetalsar Junction was extended.

The goods platform with its siding at Limbdi was shifted to the opposite side and a low-level platform was also built at this station.

A new Hydraulic Wheel Press was provided at Ghadechi, and the workshop compound at that station was fenced; a weigh-bridge was provided at Jetalsar Junction.

The Station-house at Rajkotpura was extended; a Goods shed was constructed at Rajkot Junction.

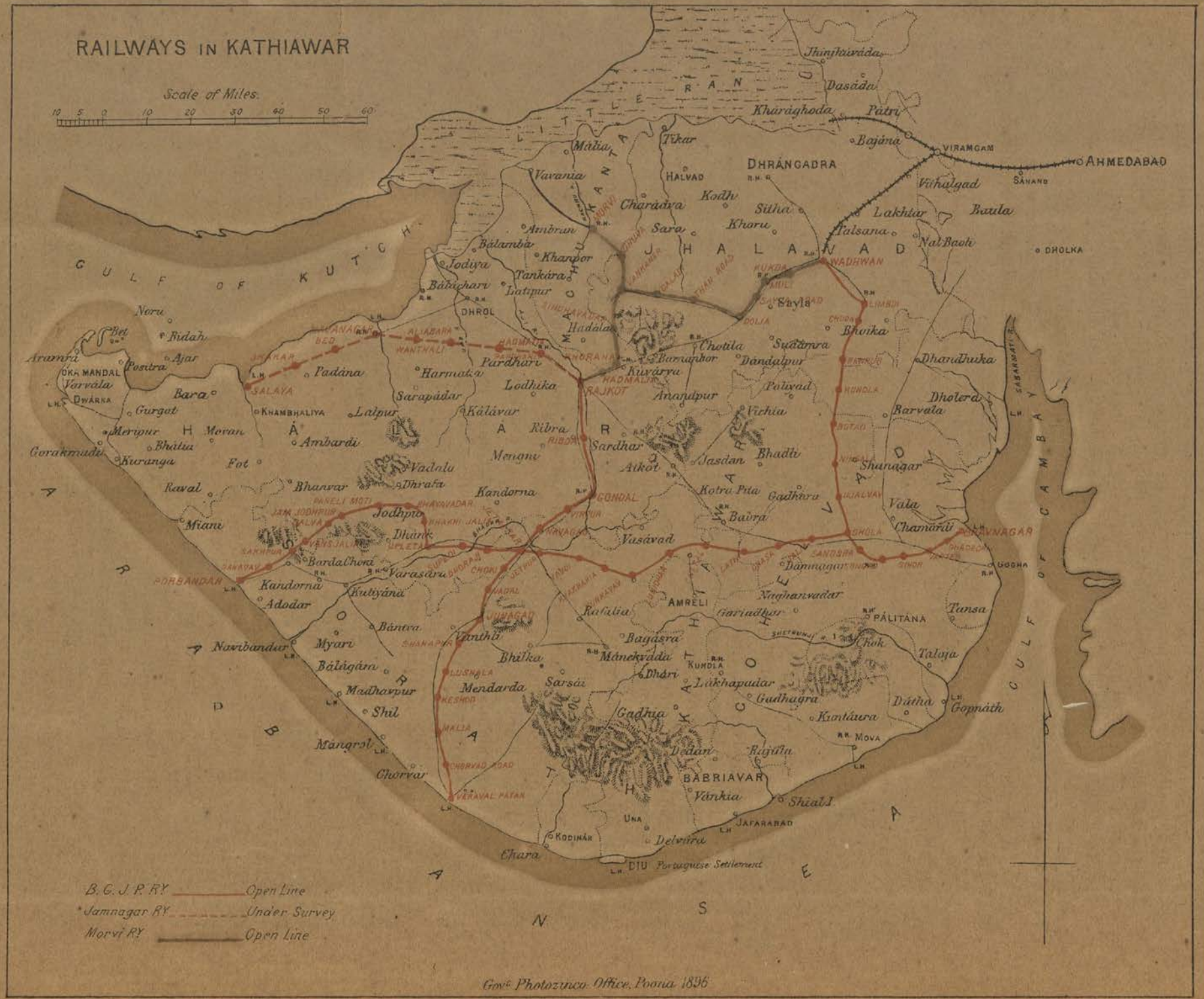
Also a few minor Capital and Revenue Works throughout the line.

The following works were under progress at the close of the year:—

Opening out waterways at the Raidhra Bridge.
Oojet Bridge restoration works.
Demarcation of the land occupied by the Railway.
Making roads and paths at Jetalsar Junction.
New trial well at Jetalsar Junction.
Collection of ballast on Jetalsar-Rajkot Railway.
Goods depôt and sidings at Rajkotpura.
Road overbridge at mile 20 near Gondal.

General. During the year under report, some 312,016 cubic feet of stone ballast were renewed on the old Bhavnagar-Gondal Section and 79,179 cubic feet on the Jetalsar-Veraval Section, and contracts for collecting some 310,000 cubic feet more have been let.

Some four miles of 23 feet 9$\frac{8}{8}$ inch rails between Jetalsar and Dhoraji have been renewed and replaced by 24 feet rails of similar section, and the renewal of another mile is in progress.



Govt. Photozinco Office, Poona 1896

The renewal of old creosoted pine sleepers on the Bhavnagar-Wadhwan and Dhola-Dhoraji Sections were less, as up to the end of the year some 221,502 new creosoted-pine square sleepers have been laid in the road.

The Jetalsar-Veraval Section originally laid with gir sleepers has now been almost entirely renewed with creosoted pine and deodar sleepers. Up to the end of the year, some 98,040 new creosoted pine sleepers have been put into the road and there are very few gir sleepers now left.

RAJKOT-JAMNAGAR RAILWAY—(*Metre Gauge*).

Work on this line was commenced in January 1896; and a good start has been made in throwing up earthwork in banks and the construction of bridges, both large and small. The line will, it is expected, be ready for opening by June 1897.

AHMEDABAD-PARANTIJ RAILWAY—(*Metre Gauge*).

Work was commenced in February 1896: at the end of the year, 35 per cent. of the formation between Ahmedabad to Parantij had been completed, as also 25 per cent. of the large bridges and 10 per cent. of the minor ones; 15 per cent. of the ballast required had been collected at the quarries and 25 per cent. of the foundations of the stations and buildings and staff quarters had been completed. A quantity of earthwork has been finished; work is being pushed on vigorously and the line is expected to be opened in March 1897.

MORVI RAILWAY—(2′ 6″ *Gauge*).

Permanent Way.—18 miles of 19 lbs. rails have been replaced on Rajkot Branch (from Sindhavadar to Rajkot) by 41¼ lb. steel rails and creosoted pine sleepers of metre gauge section.

Renewals.—776 steel 11 lbs. sleepers for 19 lb. rails have been renewed on the main line from miles 0 to 24, and on the Rajkot Branch, chiefly in salty places.

18 Teak-wood sleepers have been renewed on the main line.

Repairs to Culverts and Bridges.—Only petty repairs have been done.

Stations and Buildings.—The store room at Vankaner has been renewed.

6 waterway drain pipes have been laid between miles 59 and 60.

A goods shed of iron frame with galvanized iron roof and sides 50 feet long and 25 feet wide, and a carriage shed 65 feet long and 10 feet wide, have been built at Wadhwan and Rajkot respectively.

GAEKWAR'S DABHOI RAILWAY—(*2′ 6″ Gauge*).

No work of any importance was carried out on this line during 1895-96.

RAJPIPLA STATE RAILWAY—(*2′ 6″ Gauge*).

At the request of the Rajpipla State, a railway line on a 2′ 6″ gauge is being constructed from Anklesvar to Sarsa, 19·73 miles, *en route* to Nandod the capital of the State. At the end of the year, the greater portion of the earthwork had been completed and the bridge work was in hand.

VISHWAMITRI-PADRA RAILWAY—(*2′ 6″ Gauge*).

The Dabhoi-Vishwamitri Section of His Highness the Gaekwar's 2′ 6″ gauge system is being extended to Padra, 7·25 miles towards the west. This extension will cross the Company's main line near Vishwamitri by means of a sub-way. The work is now being proceeded with.

BARSI LIGHT RAILWAY—(*2′ 6″ Gauge*).

Work was commenced on this line on the 1st January 1896, and the rails are now laid between Barsi Road and Barsi Town. 75 per cent. of minor bridges are completed, but 8 large bridges requiring iron girders are not yet commenced, *i.e*, as regards the iron-work, which will be laid on existing masonry. The ballasting of 50 per cent. is complete, and work has been commenced on station buildings and offices in Barsi Town. The line is expected to be opened for traffic before the end of the current calendar year.

Chapter III.—Lines under Survey or Projected.

(For the official year ending 31st March 1896.)

Rutlam-Muttra Railway (standard gauge, 381¼ miles).—As stated in last year's report the first 25½ miles, of this line, as far as Nagda, were under construction, and since the close of the official year, this branch has been opened for traffic. The survey of the line, as far as the second crossing of the Chambal river, at Miana (mile 222·30 from Rutlam), was carried out in 1894-95 and was referred to in last year's report.

During the past year the surveys of the entire project were completed. The general location of the line as settled by the survey party is as under:—

Having crossed the Chambal River at Miana, mile 222, the line turns north-west to enter the Balwan Valley, which winds through the Madhopur Range. At mile 226 the entrance to the valley is gained, and here the line makes a quarter circle turn, heading north-east and keeping on the western side of the valley till the hamlet of Todra is reached, mile 230½. Here another quarter circle turn is made to the north-west, and this course is followed as far as the Ramnagar gap, where the line emerges from the Madhopur Range at mile 235. The line then turns north, and, running along the base of the Madhopur Range, crosses the Madhopur Nulla, mile 243¼.

A station is fixed at Madhopur, mile 243¾. This town is the head-quarters of the Madhopur Sub-division or Nizamat, 1,774 square miles in area, and with a density of population of 149 to the square mile.

At Madhopur the line turns north-east, still keeping parallel with the Madhopur Range, and about two miles distant from it.

At mile 262, the line turns due east and passing round the end of the range, surmounts a low gap at Boripahar, mile 262½, with a cutting 1,800 feet long and 38 feet extreme depth.

At mile 264 the line again turns north-east, crossing the Banas River at mile 264½, about two miles below its junction with the Morell River. The Banas River is crossed by 24 girders 100 feet, 50 feet high.

The line then turns north to cross the Dungir Nulla by a bridge of 7 girders 60 feet and 2 girders 40 feet at mile 268½; it then enters at mile 272½, Aruda station, an engine-changing station.

Leaving Aruda, the line turns north-east and runs through a narrow valley, with low detached hills on each side.

At mile 283·75, 4 miles north of Bhojapura station, an alternative line takes off, running to Kerowlee and joining the Main Line again further on at mile 307·77.

The line continues its course to Kurgaon, mile 290, where a station has been fixed, within the Kerowlee State, to serve the town of Kerowlee, which lies 10 miles distant to the east. Kurgaon also serves the town of Gangapur, 9 miles distant on the west, the head-quarters of a Nizamat or sub-division, 277 square miles in area, and with a population of 81,216, giving a density of 293 to the square mile.

Leaving Kurgaon, the line turns north to Baroda, mile 298¼. The station at Baroda also serves the town of Kerowlee.

The line then runs more or less parallel with the Gambhir River, which it eventually crosses, due east and west, at mile 304 by 9 girders 60 feet and 1 girder 40 feet.

After crossing the Gambhir River, the line changes its course at mile 306½ to north-east, and keeps this direction past Hindoun, mile 312¾, and Surote, mile 322, as far as Biana, mile 333½. At mile 312¾ is fixed Hindoun station, about half a mile from the town. This is the head-quarters of a Nizamat, having an area of 674 square miles, with a population of 186,905, giving a density of 277 to the square mile.

The station on the Rajputana-Malwa Railway, called Hindoun Road, but locally known as Mandawar, is about 32 miles north of this town. An excellent metalled road has been made from the Railway station through Hindoun to Kerowlee, a total distance of 50 miles, crossing two large rivers, the Gambhir and the Banganga, which however are unbridged. Along this road a large passenger and goods traffic is carried.

Leaving Hindoun, the Jagar Nulla is crossed, at mile 316, by 13 girders 40 feet. The line continues its north-east course through a very fertile district up to mile 326, where the Gambhir River is crossed a second time, this crossing having a bridge of 21 girders 100 feet. Having crossed the Gambhir, the line runs along a narrow tract of country, having the Biana hills on the west and the Gambhir River on the east. At mile 332 the line passes round the end of the Biana hills and turns north, in which direction it keeps up to the crossing of the Banganga River. Biana station at mile 333½ serves a district, which has been rich and important in its time, and which will doubtless regain its once flourishing condition when connected with the Railway. On the hills to the south of the town stands the old Badal Garhkot, an enclosed and walled fortress, now in ruins, covering a very considerable area of ground. The town of Biana has numerous old Mahomedan tombs, and the ruins of carved pillars and gateways testify to the wealth and prosperity that once reigned here. The population of the Bhurtpore State, of which Biana is a district, is given as 323 to the square mile.

At mile 343, the Banganga River is crossed by 20 girders 100 feet. The line then pursues a north-east course over a flat country, fertile and well populated, to mile 359, where it turns due east to enter the Rajputana-Malwa Railway Station of Bhurtpore. The metre-gauge line is crossed on the level at the east end of the station at mile 359½, and the line again resumes its north-east course, crosses the Delhi-Agra Canal at mile 372 by 1 girder 40 feet, and finally terminates at the north end of Muttra Station yard, on the Rajputana-Malwa Railway, at mile 381·29.

The length from the second crossing of the Chambal River to Muttra is accordingly 158·98 miles, and the estimates including rolling stock amount to Rs. 1,69,70,571 or Rs. 1,06,746 per mile.

In accordance with instructions the same survey party surveyed a branch from Muttra to Agra, 31·81 miles, estimated to cost Rs. 24,55,903, or Rs. 77,205 per mile.

The Government of India also desired the submission of a separate project for a broad gauge line from Muttra to Aligarh. This was also surveyed by the same party. The estimates submitted are for a line 36·95 miles long, crossing the Jumna at Muttra over the existing metre gauge bridge which is reported strong enough to carry both gauges. The estimates work out to Rs. 30,46,336, or Rs. 82,333 per mile.

The instructions issued to the survey party contemplated also a reconnaissance from Joar to Bandikui, in connection with an alternative proposal to reach Delhi on the standard gauge by converting the existing metre gauge track between Bandikui and Delhi to the standard gauge. The route actually reconnoitered lies between Madhopur and Bandikui. A standard gauge line along this route would be 81·28 miles long, estimated to cost Rs. 89,71,222, or Rs. 1,10,374 per mile; while the cost of converting the existing metre gauge line between Bandikui and Delhi to the standard gauge is put down roughly at 90¼ lakhs.

The abovenamed estimates, which include provision for rolling stock, have, together with the respective reports and plans, been submitted for the consideration and orders of the Government of India.

Tapti Valley Railway (262½ miles, standard gauge).—Reference was made in last year's report to the fact that Messrs. Killick, Nixon and Company of Bombay had applied for a concession on feeder line terms for the construction of the western portion of the project surveyed by the B. B. and C. I. Railway Company from Surat to Amalner. The concession was granted conditionally in

December 1895 to hold good for six months. During the year the re-survey of the length between miles 94 and 126 was carried out also, and a better alignment secured taking the line north instead of south of Nandurbár. The re-alignment has increased the total length up to that town from 161 to 162·47. In submitting the results of the re-survey, advantage was taken to submit revised estimates for the whole length. These now amount to Rs. 1,55,30,628, taking exchange at 1*s.* 1*d.*, and this can be reduced to Rs. 1,53,65,168 if the line is made to join the B. B. and C. I. Railway main line at a point about 2½ miles south of Surat Station.

As regards the eastern portion of the project, the Secretary of State was in correspondence with the G. I. P. Railway Company with the result that his Lordship towards the close of the last financial year agreed to permit the G. I. P. Railway Company to construct the portion from Amalner to Jalgaon. That Railway Company are also desirous of joining Dhulia with the Main Line, but the question whether a branch from Dhulia should be made to join the Main Line at Chalisgaon or at Manmad is under consideration.

Baroda State Railways.—During the year sanction was given to the construction of a branch line on the 2′ 6″ gauge from Vishwamitri to Padra, a distance of 7¼ miles. This is a short length of the Vishwamitri-Kanjat line surveyed in 1893-94. The Baroda Darbar are desirous of immediately extending the new branch to the limits of the Gaekwari villages of Mobha and Mahuwel, about 9 miles beyond Padra, and asked for fresh estimates of this further length of 9 miles. The requisite estimates have been prepared by the Officers of the B. B. and C. I. Railway and are under the consideration of the Darbar.

For the proposed extension of the Gaekwar's Dabhoi Railway (2′ 6″ gauge) from Bahadarpur to Songir (9¼ miles), revised estimates were submitted in June 1895 amounting to Rs. 4,57,505 and were sent to the Baroda Darbar, who replied in December that the project is held in abeyance for the present.

The surveys of the proposed metre gauge branches from Patan *vid* Sidhpur to Kheralu (38 miles) and from Vijapur *vid* Kalol Road Station, on the Rajputana Malwa Railway, to Kadi (about 42 miles) were completed during the year, and the submission of the projects in detail is awaited.

Surveys were carried out two years ago in connection with a project for connecting the Gaekwari towns of Harij and Chansama with the Patan Branch of the Gaekwar's Mehsana Railway (metre gauge). The Baroda Darbar have requested the B. B. and C. I. Railway Company to carry out a further survey for extending the proposed line from Chansama to Bechraji, a distance of 17 miles.

Ahmedabad-Dholka Railway.—During the year Messrs. Dhunjibhoy Jamsetji Medora & Co. of Ahmedabad applied for a concession for this line (32 miles) to be constructed either on the metre or 2′ 6″ gauge. Having regard to the opposition to the project manifested by the B. B. and C. I. Railway Company when Mr. James Currie of Karachi made a similar application in the previous year, Messrs. D. J. Medora & Co. were informed that Government would only consider the matter if they induced the B. B. and C. I. Railway Company to agree to reasonable terms for the construction, maintenance and working of the line. The subject is still under consideration.

Chord Line from Baroda to Godhra.—During the year the B. B. and C. I. Railway Company renewed their proposals for the early construction of a Chord line on the standard gauge from Baroda to Godhra. The scheme was recommended to the Government of India, with the result that towards the end of February 1896 orders were issued for a re-survey of the route proposed. The Survey, which was estimated to cost Rs. 6,897, was taken in hand by the B. B. and C. I. Railway Company, and the project in detail has just been submitted. The line which will be about 44 miles in length is expected to cost (including Rolling Stock) Rs. 33,72,664 or Rs. 76,651 per mile.

Other Railway Projects.—Of the other Railway projects referred to in last year's report sanction was given during the year to the construction of the Jamnagar State Railway, the Ahmedabad-Parantij Railway and the Barsi Light Railway, and work is in progress on all three.

CHAPTER IV.—ACCIDENTS.

(*For the calendar year ending* 31*st December* 1895.)

The following statements shew the number of accidents to trains and the total number of persons killed or injured, on the Railways open for traffic, during the calendar year ending 31st December 1895 as compared with similar figures for the year 1894 :—

A

Number of Persons reported during the 12 *months ending* 31*st December* 1895 *as killed or injured on the Railways (open lines), under the control of the Government of Bombay, by the travelling of trains or the movement of vehicles used exclusively upon the line, distinguishing between Passengers, Railway Servants and other Persons and classifying as far as practicable the nature and causes of the accidents occasioning death or injury.*

| Year. | | | PASSENGERS. | | | | | | | | | | | | | | | | | | SERVANTS. | | | | | | | | | | | | | | | | | |

B

Accidents to Trains, Rolling Stock, Permanent Way, &c., reported during the twelve months ending 31st December 1895, as having occurred on the Railways under the control of the Government of Bombay, distinguishing the different classes of accidents, and the number of passengers and others and of railway servants killed or injured in each class of accidents.

	During 1895.						
	Number of Train Accidents.	Number of Passengers and Others.		Number of Servants.		Total all Classes.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains or parts of passenger trains	2	...	...	...	...	...	...
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line...	13	...	1	...	1	...	2
3. Collisions between goods trains or parts of goods trains	32	...	...	...	...	...	...
4. Collisions between light engines	3	...	...	...	1	...	1
5. Passenger trains or parts of passenger trains leaving the rails	17	...	...	...	...	...	...
6. Goods trains or parts of goods trains, engines, &c., leaving the rails	46	...	...	...	...	...	...
7. Trains or engines travelling in the wrong direction through points	42	...	...	...	...	...	...
8. Trains running into stations or sidings at too high a speed	14	...	...	...	...	...	...
9. Trains running over cattle on the line ...	640	...	...	...	...	...	...
10. Trains running over obstructions on the line...	83	...	5	...	...	...	5
11. Trains running through gates at level-crossings.	22	...	...	...	1	...	1
12. The bursting of boilers of engines ...	...	...	...	...	...	...	...
12A. The bursting of tubes, &c., of engines ...	71	...	...	...	...	...	...
13. The failure of machinery, springs, &c., of engines	211	...	...	...	...	...	...
14. ,, ,, of tyres	10	...	...	...	...	...	...
15. ,, ,, of wheels	4	...	...	...	...	...	...
16. ,, ,, of axles	34	...	...	...	...	...	...
17. ,, ,, of brake apparatus	5	...	...	...	...	...	...
18. ,, ,, couplings	111	...	...	...	...	...	...
19. ,, ,, of tunnels, bridges, viaducts, culverts, &c.	...	...	...	...	...	...	...
20. Broken rails	16	...	...	...	...	...	...
21. The flooding of portions of permanent-way ...	30	1	...	...	...	1	...
22. Slips in cuttings or embankments ...	16	...	...	...	1	...	1
23. Fire in trains	45	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	10	...	...	...	...	...	...
25. Other accidents	49	3	21	...	2	3	23
Total of all classes in 1895 ...	1,526	4*	27†	...	6	4	33
Do. in 1894 ...	1,592	1‡	28	3§	19	4	47

	1894.	1895.
Mean mileage worked	5,904·48	6,025·97
Train mileage of all descriptions	24,270,470·	23,386,586·
Number of passengers	45,815,443·	46,527,253·
Train miles per accident	15,245·	15,322·
Passengers killed per million	0·00	0·04
,, injured per million	0·59	0·45

* Of these 2 were not passengers.
† Of these 6 were not passengers.
‡ Was not a passenger.
§ Of these 2 were not passengers.

The following statement shows the number of train miles run, the number of accidents, excluding running over cattle, and the average number of train miles per accident on each railway during the year 1895 :—

	Train miles.	No. of Accidents.	No. of Train miles per Accident.
G. I. P. Railway system	9,924,659	273	36,354
B. B. & C. I. Railway, including the Godhra-Rutlam and His Highness the Gáekwár's Petlád Railways	2,883,573	130	22,181
His Highness the Gáekwár's Dabhoi Railway ...	74,912	6	12,485
Rajputána-Málva Railway system, including His Highness the Gáekwár's Mehsána Railway ...	6,405,860	248	25,830
Southern Mahratta Railway system, including the Mysore State Railway, the Kolhápur State Railway, the Bangalore-Mysore Frontier Railway, the Guntakal-Mysore Frontier Railway, and the Nanjangud Extension	3,318,821	196	16,933
His Highness the Maháráná of Meywár's Oodeypore-Chitor Railway	20,920	3	6,973
Bhávnagar-Gondal-Junágad-Porbandar Railway, including the Jetalsar-Rájkot Branch ...	601,783	23	26,164
Morvi Railway	156,058	7	22,294

Accidents.

G. I. P. Railway System—(*Standard Gauge*).

(Includes the Wardha Coal, the Dhond and Manmád and the Berárs State Railways).

On the 28th March 1895, the engine tender, 4 wagons and centre brake of No. 89 Down Goods train were derailed at mileage 227/7 between Kim and Bársi Road Stations on the South-East Line owing to a rail having been taken out for renewal by the gangmen and to it being impossible to put up the new rail owing to the expansion of the road. No signals had been sent out for protecting the work until the train was within half a mile of the spot when it was too late for it to pull up. The rolling stock and permanent way were damaged. The keyman to blame having been prosecuted, was convicted by the Magistrate and fined Rs. 10, or in default to undergo 10 days' simple imprisonment.

On the 14th July the engine of No. 80 Up Nágpur Passenger train was derailed at mileage 93/14, on North-East Line, near Ghoti Station owing to a fish-bolt having been placed on one of the rails. Engine was slightly damaged but the permanent way a good deal. The perpetrators, three boys, were prosecuted and the Sessions Judge convicted them and bound over their fathers—the boys being too young to be dealt with.

B. B. & C. I. Railway (*Standard Gauge*).

(Includes the Godhra-Rutlam and Gáekwár's Petlad Railways).

There were no accidents of a serious nature on this line during the year.

Rajputána-Malwa Railway System—(*Metre Gauge*).

On the 15th January 1895 at Biwai Station, on the Agra Branch, No. 82 Down Goods train collided with the rear portion of No. 73 Up Goods train which was standing foul of the east end crossing of the 3rd line. The accident was due to the Driver of the Down train having disregarded the signals and entered the yard at a high speed, and also to the Station Master having shown wrong signals at the facing points. The engine and tender and two wagons of the Down train were derailed. One wagon of the train was also derailed and badly damaged.

On the 28th January 1895, at Farukhabad, Cawnpore-Achnera Railway, No. 7 Up Mixed train in passing over points No. 11 collided with and caused the derailment of a wagon of No. 6 Down Mixed train which was standing foul of the

crossing. The engine and front brake-van of the Up train were damaged. The accident was due to the neglect of the Assistant Station Master and the pointsman.

On the 13th July between Vadnagar and Visnagar on the Mehsána Railway a cow, which had got on to the line through an unmanned level crossing at mile 13/14, was run over and killed by the engine of No. 62 Down Mixed train. C. G. wagon No. 439, the second from the engine, was derailed.

On the 3rd August 1895, the engine of No. 2 Down Mail collided with a pair of lorry wheels which had been left on the road at mileage 420-4/5 near Mori Station on the main line. The accident was due to the neglect of rules by the Permanent Way Sub-Inspector. The engine cowcatcher was damaged.

On the 15th September 1895, at Sali Station, No. 2 Down Mail train collided with some wagons standing on the 3rd line; the engine and nine wagons were derailed and damaged. The Engine Driver was slightly injured. The accident was due to the train being put on the wrong line. The Assistant Station Master, who was to blame, was prosecuted and being convicted was sentenced to rigorous imprisonment for 2 months, and also fined Rs. 100.

On the 7th December 1895, at mileage 89/13 between Jakhod and Hissar, a cow was run over by No. 58 Down Mail train. Third class carriage No. 1718 was derailed.

On the 11th December 1895, between Choral and Mukhtiara, the six tender wheels of engine of No. 85 Up Mail got derailed on a curve of 600 feet radius. No definite cause could be assigned for the accident.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre Gauge*).

On the 23rd February, when No. 72 Down Mixed was entering Seringapatam Station, it collided with a covered goods wagon owing to the points not having been locked. There was no injury to passengers.

On the 2nd April 1895, No. 1 Up Mixed collided with No. 16 Down Mixed train at Phirangipuram, owing to the train having been admitted on the same line on which No. 16 Down was standing. Four vehicles and the cowcatchers of both the engines were damaged and four passengers were slightly injured. The Station Master and the Assistant Station Master were prosecuted and sentenced to pay a fine of Rs. 20 and 150, respectively.

On the 26th April, while No. 71 Up Mixed train was entering Tumkur Station, two wagons were derailed and one capsized. The permanent way and the three vehicles were damaged. The derailment was due to the tyre of one of the trailing wheels of the engine tender coming off.

On the 30th May, coal wagon No. 2131 escaped from Tadepalli Station towards Mangalagiri and No. 1 Up Mixed train collided with it at mile 508/18; the wagon was pushed into Mangalagiri. The occurrence was due to the wagon not having been properly secured. The engine and the wagon were damaged.

On the 1st July, the engine and five loaded wagons on No. 45 Up Mixed train were derailed at Salpa and one wagon capsized. The permanent way and the wagons were considerably damaged. The derailment was due to the pointsman reversing the points while the train was passing over them.

On the 11th December, a trolly in charge of a Fuel Inspector was run into by No. 33 Down at mile 8/1 between Londa and Gunji. The Fuel Inspector and his trolly men jumped off the trolly before it collided with the train. The trolly was thrown off the line and broken. The engine of the train was slightly damaged. No one was injured.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

(Including the Jetalsar-Rajkot Section).

On the 28th May 1895 leading wheels of wagon No. 705 attached to 30 Up Goods were derailed owing a teak timber "bullie" getting loose and slipping down between the wagon it was loaded upon and the one immediately following, and dragging along the ground till it came to the Sihor Station trailing point where it derailed the wagon as stated. Some damage was done to permanent way and stock, but nothing further.

The derailment was due to bad loading of wagon No. 276.

On the 22nd December 1895 a runaway wagon, which was being hand-shunted at Ranawao, got out of control and collided with the Up Mixed at mile 185/10, Dhasa-Porbandar Section. No one was injured nor was there any damage to the permanent way, but the wagon itself and the Engine of the Up Mixed train were slightly damaged. The train proceeded after slight detention.

The collision was due to the carelessness of traffic staff, and they have been punished.

MORVI RAILWAY—(2′ 6″ *Gauge*).

The year was altogether free from serious accidents.

GAEKWAR'S DABHOI RAILWAY—(2′ 6″ *Gauge*).

Nil.

Flood Damages.

GREAT INDIAN PENINSULA RAILWAY SYSTEM—(*Standard Gauge*).

(Includes the Wardha Coal, the Dhond and Manmad and the Berars State Railways).

On the 19th June, a large stone loosened by heavy rain dropped on to the road at mileage 70½ near the Bhore Ghat Reversing Station and both lines were blocked for 1 hour and 15 minutes.

The rainfall for the year was below normal, but the heavy cyclonic rains which fell on the 6th and 7th September 1895 in the Barsi-Sholapur District caused considerable disaster to three bridges on the South-East Line.

On the night of the 6th September, the storm waters carried away the south span with the piers of the Benisherur Bridge (6 spans of 60 feet girders) at mileage 330 between Boroti and Dudni.

On the same date, at mileage 318 between Boroti and Dudni, eleven piers from the north end and five piers of the south end of the Bori Bridge (20 spans of 30 feet girders) were overturned and wrecked by the floods.

On the 7th September, also, the cyclonic storm caused the River Seena to rise to about half-way between the springing and the crown of the arches of the Seena Bridge (12 spans of 40 feet masonry arches) at mileage 268¼ between Mohol and Pakni Stations, and entirely wrecked the six arches at the Raichur end of the bridge. On the 13th idem, heavy rain again caused a flood in the Seena River and, owing to the rush of water, the third, fourth, fifth and sixth arches collapsed, the third arch carrying with it a Government telegraph lineman who was at the time trying to repair the damaged telegraph wires.

Through communication over this portion of the South-East Line was not restored for some considerable time, during which time, passengers were transhipped. New bridges have been erected in place of those wrecked.

On the 7th September, the line at mileage 261 between Angar and Mohol Stations was under water and the ballast was, for the length of three telegraph posts, scoured out from under the pot sleepers, stopping the traffic for the time being. The road was put right on the 8th idem after the water had subsided.

On the 11th September, the ballast of a flat-topped culvert at mileage 86/17 near Kharkala sank owing to heavy rain which caused the mortar in the joints of the cover stones of the culvert to fall out, thereby allowing the ballast and earth to fall through.

BOMBAY BARODA AND CENTRAL INDIA RAILWAY (INCLUDES THE GODHRA-RUTLAM AND GAEKWAR'S PETLAD RAILWAYS—(*Standard Gauge*).

There were no damages due to floods during the year.

RAJPUTANA-MALWA RAILWAY SYSTEM—(*Metre Gauge*).

At mile 487/8 on the main line a bridge of 1-40 feet girder had its wing walls and embankment scoured out; the flood water rose 1 foot above the bottom

of the girders. Damage was also done to pitching at toe of embankment at mile 482/11 by the erosion of the river bank and a diversion for the stream had to be made.

On the Patan Branch of the Gaekwar's Mehsana Railway, there was a heavy fall of 9 inches on the night of 16th July and of 10 inches on the Mehsana-Viramgam Branch, and there is no doubt that but for the recently constructed additional waterways and raising of banks on those lines, there would have been serious damage to the road and interruption to traffic.

The monsoon experienced on the Rewari-Ferozepore Railway, Cawnpore-Achnera Railway and on the Delhi and Agra Branches was much below the average; elsewhere it was about the average.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre Gauge*).

12th May.—A cyclone accompanied by heavy rain and hail which visited Guntakal at about half past nine, at night, caused great damage to a number of buildings, &c., in the station yard. The wind completely lifted the roof of the third class waiting shed at the east end of the station, which had hollow iron columns bolted through masonry pillars to iron bed-plates on a continuous bed of concrete, and carried it 75 feet away. There were 30 passengers in the shed at the time, out of whom 2 children were killed by the columns falling on them and one seriously hurt; three adults were seriously hurt and a dozen slightly so. Several passenger carriages standing on the platform line were blown over on to their sides; trees were uprooted with the violence of the storm and some of them blown away to a distance. Repairs to damages were put in hand immediately.

30th May.—Owing to a heavy strom at Gudgeri on the evening of this day, a brake-van was capsized off the dead end to the west; a sentry box was entirely blown off and smashed; C. I. roofing of a latrine was blown away; several tiles were blown off the station building and staff quarters and several panes of glass broken by hail stones.

4th June.—Owing to a heavy storm at Nandyal on this night, the C. I. sheeting on the roofs of some of the buildings was torn away and Mangalore tiles from others blown off. A number of doors and windows were smashed and glass panes broken.

12th June.—The rain water bunded up on one side of the bank at mile 163, Bijapur Branch, not being able to draw off fast enough through the channel, percolated through and breached the bank, which is at this point 8 feet high.

6th September.—Consequent on an unprecedented fall of rain on the Bijapur Branch, the line was breached at miles 142, 143 154 and 158 and rather seriously so at mile 141. The breaches at miles 142, 143, 154 and 158 were restored in the course of a few hours, but at mile 141 passengers had to be transhipped, the breaches at this mileage having taken four days to repair.

21st September.—Owing to heavy rain and flood at midnight, the ballast under sleepers was completely washed away from mile 154/2 to 154/5. The line was restored in a few hours.

29th September.—At mile 58/8, Poona Branch, at about midnight a bank about 3 feet high and about 20 feet in length was washed away on both sides of a one foot drain, and the water forced its passage through the cutting side-drain and scoured ballast away to a length of 4 telegraph posts. Cause—heavy rain.

8th September.—In consequence of heavy rain a bad slip occurred at mile 137/4-7 on the Guntakal-Bangalore section. A bank 20 feet high slipped for a distance of 55 feet and rendered the line impassable for trains. Prompt measures were taken to repair the breach, and through communication was restored on the 12th September.

20th September.—There was an abnormal fall of rain at Giddalore (main line) and the two-feet flat top culvert at mile 367/10 not proving sufficient to carry off the flood water, this ponded back and rose up to formation level, breaching the line at mile 367/7-8 to a hundered feet in length.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

(Including the Jetalsar-Rajkot Section.)

The rainfall for the year was normal and there were no breaks, &c., on the line. The low level Oojet River diversion was washed away as expected, but transhipment arrangements being ready in advance, no great inconvenience to traffic was experienced.

MORVI RAILWAY—(2′ 6″ *Gauge*).

Flood damages were very slight, the worst being on 18th July when the low approach bank to culvert at mileage 28 was washed out for 100 feet.

GAEKWAR'S DABHOI RAILWAY—(2′ 6″ *Gauge*).

There were no damages by floods on this line during the year.

Chapter V.—Stores and Rolling Stock.

(For the calendar year ending 31st December 1895.)

GREAT INDIAN PENINSULA RAILWAY—(*Standard Gauge*).

The stores balance on 31st December 1895 amounted to Rs. 50,74,695 inclusive of a sum of Rs. 1,05,075 representing value of stores in transit. The following are the principal items making up that balance :—

	Rs.
Permanent Way Materials	9,11,553
Engines, Locomotive and Stationary, &c.... ...	9,08,975
Metals	8,47,978
Fuel	6,55,437
Rolling Stock	5,92,129
Station Materials	1,50,591
Timber	1,24,723
Bridge-work and Fittings	90,044
Stationery	87,263
Tools	56,677
Oil, Tallow, waste, varnishes, &c.	55,808
Miscellaneous	4,88,442
	49,69,620
Stores in transit...	1,05,075
Grand Total ...	50,74,695

The value of consignments received from England during the year amounted to Rs. 27,09,161, while stores to the value of Rs. 32,75,853 were purchased locally. The issues of the year were :—

	Rs.
To construction account	4,86,254
To Revenue account	52,27,069
Sales, &c.	6,61,470

resulting in a decrease in the stores balance during the year of Rs. 4,77,966. This is principally due to the depletion of fuel to the extent of Rs. 3,05,070, and the larger issues of rolling stock and metals to the extent of Rs. 1,95,628 and Rs. 1,36,850 respectively.

At a meeting of Company's Officers, held on 16th May 1895, it was decided to divide the stores balances under the following heads :—

A.—Working Stock.
B.—Surplus Working Stock.
C.—Plant.
D.—Obsolete.

According to this classification, the Surplus Working Stock at 31st December 1895 amounted to Rs. 1,64,098 and Obsolete Stock to Rs. 5,19,799, and sales to the extent of Rs. 4,17,000 have since been sanctioned.

The state of the Rolling Stock of the line on the last day of the year was as under :—

	Total Stock.	Undergoing or awaiting repair or renewal.	In actual running order.
Locomotives—			
Passenger, ordinary	113	20	93
Goods	376	72	304
Incline, special	74	18	56
Tank	42	10	32
Total, Locomotives ...	605	120	485
Coaching Vehicles—			
First class, ordinary	88	7	81
Composite, First and Second Class, ordinary ...	73	13	60
Do. Second and Third do. ...	2	...	2
Second Class, ordinary	150	17	133
Do. with postal accommodation ...	22	3	19
Third Class without brakes, ordinary ...	526	81	445
Do. do. ambulance ...	29	8	21
Third Class and brake-vans	90	15	75
Compound Third Class incline vans	1	...	1
Postal vans	7	1	6
Prison vans	6	...	6
Carriage trucks	50	4	46
Horse boxes	93	12	81
Luggage vans	90	5	85
Brake-vans	542	67	475
Total, Coaching Vehicles ...	1,769	233	1,536
Goods Vehicles—			
Covered goods wagons, ordinary, iron ...	751	27	724
Do. do. wooden	3,661	262	3,399
High-sided wagons, bogie, iron	50	3	47
Do. do. ordinary, wooden ...	317	28	289
Low-sided do. do. iron ...	999	34	965
Do. do. do. wooden ...	1,796	257	1,539
Pilot wagons	25	1	24
Powder vans	18	3	15
Timber trucks, iron	24	...	24
Do. do. wooden	167	19	148
Travelling water tanks	12	2	10
Do. gas-holders	4	...	4
Total, Goods Vehicles ...	7,824	636	7,188

The numbers of locomotives and vehicles repaired and renewed during the year were as under :—

		First-half.	Second-half.	Total.
Locomotives ...	Repaired ...	138	144	282
	Renewed ...	13	12	25
Coaching vehicles ...	Repaired ...	905	892	1,797
	Renewed ...	40	40	80
Goods vehicles ...	Repaired ...	3,403	3,095	6,498
	Renewed ...	110	115	225

Of the total number of vehicles on the line, the following are adapted to military purposes :—

Fitted for ambulance purposes ...	29 Third Class carriages.	
Fitted with hooks or racks for rifles ...	54 Second do. do.	
	66 Third do. do.	
Horse boxes capable of carrying 3 horses each	93	
Covered goods wagons adapted for carriage of 8 horses or 10 ponies each ...	1,506	
Covered goods wagons suitable for the carriage of 6 horses or 8 ponies each ...	375	

The Rolling Stock on the line fitted with brakes stood thus at the close of the year :—

	Vacuum Automatic.	Single Vacuum.	Steam.
Locomotives	128	188	27
Vehicles	663	...	...

The whole of the Coaching Stock is fitted with screw couplings at both ends. Goods vehicles are fitted with those couplings at one end only and 4,141 was the number of goods vehicles so fitted at end of the year, of which 3,500 were on capital account and 641 on revenue account.

During the year 364 vehicles were fitted with Pintsch's gas, making a total of 403 at the end of the year.

In addition to the Rolling Stock of the line detailed in the foregoing paragraph, the Company possesses a $\frac{7}{16}$th share in the undermentioned East Indian and G. I. P. Railways Joint Stock employed in the through service between Calcutta and Bombay :—

First Class carriages	8
Second do. do.	8
Luggage vans	8
Mail vans	12
Total ...	36

DHOND AND MANMAD STATE RAILWAY—(*Standard Gauge*).

On 31st December 1895, the stores balance stood at Rs. 61,077 or Rs. 60,198 more than the balance at end of 1894 as shown below :—

	Rs.
Balance on 31st December 1895	61,077
Do. do. 1894	879
Increase ...	60,198

During the year there were no issues and the total receipts of Rs. 60,198 represent the cost of fencing materials received from England and write back of a wrong credit of Rs. 201 in previous year. It is probable that the whole stock will be issued in 1896 for fencing works now in progress.

THE BERAR RAILWAYS—(*Standard Gauge*).

On 31st December 1895 the balances were as under :—

	Rs.
Khamgaon State Railway	482
Amraoti State Railway	6,563

During the year there were no stores transactions on the Khamgaon State Railway. On the Amraoti State Railway, stores worth Rs. 1,341 were sold to the G. I. P. Railway and the proceeds credited to the Capital Account of the line.

The stores on these lines consist entirely of permanent way materials which are in the custody of the G. I. P. Railway Company who are authorized to use them when required. The value of stores thus used for their own purposes is recovered from the Company and credited to the Capital Accounts of the Railways.

WARDHA COAL STATE RAILWAY—(*Standard Gauge*).

There is no stores account on this railway.

B. B. & C. I. Railway—(*Standard Gauge*).

The stores accounts closed on 31st December 1895 with a balance of Rs. 27,18,741, or Rs. 1,63,686 less than the balance at close of 1894 as shown below :—

	Rs.
Balance on 31st December 1894	28,82,427
Do. do. 1895	27,18,741
Decrease in 1895 ...	1,63,686

The transactions of the year 1895 were as follows :—

	Rs.	Rs.
Receipts—		
English stores	19,87,145	
Indian do.	27,35,603	
		47,22,748
Issues—		
On Capital account	14,72,466	
„ Revenue account	25,44,981	
„ Sales, &c.	8,68,987	
		48,86,434
Net decrease as above ...		1,63,686

The decrease was principally due to large issues of permanent way material, rolling stock, and miscellaneous stores during the year; the shipments in transit on 31st December 1895 were also less than in 1894. There were increases in bridge-work and fuel.

The principal items making up the balance on hand on 31st December 1895 were as under :—

	Rs.
Bridge-work	7,44,819
Permanent Way Materials	1,36,145
Rolling Stock...	6,40,341
Station materials and fencing	71,430
Metals	2,81,410
Timber	84,533
Fuel	3,94,855
Miscellaneous...	1,18,827
Stores in the hands of Permanent Way Inspectors and Locomotive Foremen	71,872
Stores in transit from England	57,971

The rolling stock on 31st December 1895 consisted of the following :—

	Total Stock.	Undergoing or awaiting repairs or renewals.	In actual running order.
Locomotives—			
Passenger, ordinary	25	2	23
Goods	98	16	82
Tank	3	1	2
Local traffic	12	4	8
Passenger and goods, mixed	24	7	17
Total, Locomotives ...	162	30	132

	Total Stock.	Undergoing or awaiting repairs or renewals.	In actual running order.
Coaching Vehicles—			
Saloons	12	...	12
Reserved carriages	6	...	6
First Class	8	1	7
Composite, First and Second	29	3	26
Second Class	41	4	37
Intermediate Class	22	...	22
Intermediate and Postal	3	1	2
Third Class	285	14	271
Third and Postal	4	1	3
Mail vans	2	...	2
Luggage vans...	14	1	13
Brake vans	28	2	26
Carriage trucks	4	...	4
Horse-boxes	15	2	13
Total, Coaching Vehicles ...	473	29	444
Goods Vehicles—			
Covered goods wagons	2,233	149	2,084
High-sided wagons	910	37	873
Low-sided wagons	574	9	565
Miscellaneous open wagons, military type ...	150	3	147
Pilot wagons	13	...	13
Salt wagons	150	1	149
Powder vans	6	...	6
Six-wheeled tracks	102	1	101
Timber tracks	60	3	57
Travelling oil tanks	3	...	3
,, water tanks	15	...	15
Accident cranes	3	...	3
Brake vans	66	4	62
Total, Goods Vehicles ...	4,285	207	4,078

Of the above, the following are adapted for military purposes :—

Fitted for ambulance purposes ... ... 15 Third Class carriages.

Fitted with hooks or racks for rifles ...
- 4 Composite.
- 22 Intermediate Class.
- 108 Third Class.

Horse-boxes capable of carrying six horses each. } 15

Covered goods wagons adapted for the carriage of horses. } 1,653 wooden wagons.

Open goods wagons suitable for the carriage of artillery.
- 51 high-sided wagons.
- 501 ballast or low-sided wagons.

The following are the principal additions and alterations, &c., during the year :—

Additions—

3 New Passenger and 5 Goods Engines were added to the stock on Capital Account for Godhra-Rutlam Railway.

7 New Passenger Engines were added out of the 10 sanctioned in Government of India No. 114 R. S., dated 15th April 1895.

5 New Goods Engines were added to the stock on renewal account.

100 Covered wagons, steel.
25 Open wagons, military type.
3 Composite bogie carriages.
6 Do. do.
4 Do. Passenger brake-vans.
} Constructed and added to the stock.

100 Ballast wagons were transferred from the Godhra-Rutlam Railway.

Reduction—

1 Passenger and Goods Engine was condemned and taken off stock.

Alterations—

1 Six-wheel Composite carriage altered to First Class.
1 Saloon carriage was altered as an inspection carriage.
1 Covered wagon, wooden, and 1 high-sided wagon, wooden, altered to Pilot wagons.

GAEKWAR'S PETLAD RAILWAY—(*Standard Gauge*).

The stores balance on 31st December 1895 stood at Rs. 9,808 and the following were the principal items :—

	Rs.
Rails, steel	2,520
Sleepers, steel	6,327

There is no rolling stock on this line, as it is supplied by the Bombay Baroda and Central India Railway.

GODHRA-RUTLAM RAILWAY—(*Standard Gauge*).

The stores account shows a decrease of Rs. 4,85,588 during the year as under :—

	Rs.
Balance on 31st December 1894	5,26,998
Do. do. 1895	41,410
	4,85,588

The bulk of the stores were transferred to the Rajputana-Malwa Railway in March 1895, and it is intended to close the account entirely in March 1896.

The Godhra-Rutlam Railway has no rolling stock of its own, the stock being, under the contract, provided by the Bombay Baroda and Central India Railway.

RUTLAM-UJJAIN RAILWAY—(*Standard Gauge*).

Construction on this line was commenced during the year 1895; the stores balance at the end of the year was Rs. 2,42,020 including Rs. 28,189 at debit of "stores in transit."

RAJPUTANA-MALWA RAILWAY SYSTEM—(*Metre Gauge*).

The stores account shows an increase of Rs. 1,83,460 during the year as follows :—

	Rs.
Balance on 31st December 1895	47,63,880
Do. do. 1894	45,80,420
Increase ...	1,83,460

The transactions of the year were as follows :—

	Rs.	Rs.
Receipts—		
English stores	8,86,837	
Indian stores	40,54,004	
		49,40,841
Issues—		
On Capital account	2,44,578	
„ Revenue account	39,38,608	
„ Sales, &c.	5,74,195	
		47,57,381
Net increase as above ...		1,83,460

The following are the classes under which there were large balances at the end of 1895 :—

	Rs.
Permanent Way	... 9,06,313
Rolling Stock	... 13,63,533
Station materials and fencing... ...	... 2,82,595
Hardware, &c.	... 1,31,119
Metals	... 4,38,107
Fuel	... 8,43,924
Stationery and forms	... 1,28,462

The increase was chiefly in locomotive stores which were valued at Rs. 19,88,443 in 1895, against Rs. 17,22,298 in 1894, a rise of Rs, 2,66,145, while general stores fell from Rs. 27,51,766 to Rs. 26,28,594 or by Rs. 1,23,172, notwithstanding a transfer of stores valued at Rs. 2,86,179 from the Godhra-Rutlam Railway.

The classes under which there were important decreases were Permanent Way, Rolling Stock and Metals, while Station Materials and Fencing, Fuel and Miscellaneous Stores show increases, that in Fuel being over 4 lákhs.

There was a difference between the general books and the general stores priced ledgers at 31st December 1895 of Rs 95,672-14-11 :—

	Rs. a. p.
Balance as per general books...	26,28,593 11 11
„ „ detailed store ledgers	25,32,920 13 0
Difference ...	95,672 14 11

The annexed statement fully explains the items contributing to the difference :—

Dr. *Cr.*

Particulars.	Rs. a. p.	Particulars.	Rs. a. p.
Value of stores received from England for the Oodepur-Chitor Railway erroneously credited to Rajputana-Malwa Railway stores in general books ..	37,048 15 0	Depreciation on tube expanders written off in ledgers but not in general books	6,130 1 2
Minor differences under adjustment	263 0 0	Stores remaining unused in the hands of Permanent Way Inspectors	35,156 8 0
Difference of which details have not been ascertained	2,382 7 3	Stores paid for, but which had not reached their destination	91,214 7 0
Net difference between general books and ledgers as above ...	95,672 14 11	Loss on stores sold and in verification	2,866 5 0
	1,35,367 5 2		1,35,367 5 2

There was also a difference of Rs. 15,882-12-1 between the detailed stationery and forms account and the balance in the general books as follows :—

	Rs. a. p.
Balance as per detailed accounts	1,27,319 8 6
„ „ general books	1,11,436 12 5
	15,882 12 1

The adjustment of this difference will, it is anticipated, be completed during the half-year ending 30th June 1896.

The balances of locomotive stores compare as follows :—

	Rs.	a.	p.
As per detailed ledgers	19,87,855	9	6
„ general books	19,88,442	14	1
	587	4	7

The difference is being traced.

The balance of stock adjusting account has been reduced from Rs. 21,406 to Rs. 13,434.

The rolling stock on 31st December 1895 was as under :—

	Total Stock.	Undergoing or awaiting repairs or renewal.	In actual running order.
Locomotives—			
Mail, special	34	9	25
Passenger, ordinary	109	18	91
Goods	271	48	223
Local traffic, shunting and ballast	32	9	23
Total, Locomotives ...	446	84	362
Coaching Vehicles—			
Saloons, State	6	...	6
Inspection	11	1	10
First Class	124	8	116
Composite, First and Second Class	46	1	45
Second Class...	95	8	87
Composite, Second and Third Class	7	2	5
Intermediate Class	50	1	49
Intermediate and Postal...	8	...	8
Composite, Intermediate and Third Class ...	25	2	23
Third Class	765	42	723
Third Class and Postal	8	...	8
Brake vans and Postal	16	...	16
Luggage vans	31	1	30
Miscellaneous	3	...	3
Carriage trucks	38	...	38
Horse boxes	82	4	78
Brake vans	266	26	240
Total, Coaching Vehicles ...	1,581	96	1,485
Goods Vehicles—			
Covered wagons, ordinary	3,949	161	3,788
Do. bogie	375	20	355
High-sided wagons, ordinary	134	8	126
Medium-sided wagons	150	2	148
Low-sided wagons, ordinary	1,240	53	1,187
Do. bogie	1,180	26	1,154
Powder vans...	35	2	33
Accident vans	15	1	14
Timber trucks	79	7	72
Store van	1	...	1
Oil tank wagons	8	...	8
Travelling cranes	29	...	29
Total, Goods Vehicles ...	7,195	280	6,915

Of the above the following are adapted for military purposes:—

Fitted for ambulance purposes ...	5	Third-class carriages, ordinary.
	21	do. do. bogie.
Fitted with racks for rifles ...	2	Composites, first and second-class.
	2	Second-class.
	8	Intermediate class.
	7	Composites, intermediate and third-class.
	133	Third-class, ordinary.
	31	do. bogie.
Horse boxes capable of carrying 4 horses each	82	
Covered goods wagons adapted for the carriages of horses	100	wagons carrying each 6 C. B. horses, 10 ponies or mules.
	100	wagons carry each 4 waler horses, 6 C. B. horses, 10 ponies or mules.
High sided wagons adapted for the carriage of horses	134	wagons carrying each 9 ponies or mules.
Open goods wagons suitable for the carriage of artillery	1,969	ballast or low-sided wagons.

Six additional F-class engines have been built and placed on the line while the following alterations have been made in the number of coaching and goods vehicles:—

Coaching Vehicles—	
20 third-class carriages, ordinary, built under the sanction conveyed in Bombay Government Resolution No. 234 of 1895 ...	+20
Goods Vehicles—	
30 steel covered goods wagons bogie 26′ built in lieu of the following stock condemned:—35 covered goods wagons, 14′ wooden, 3 low sided wagons, wooden, 3 high sided wagons ...	—30
23 iron and 2 wooden timber trucks converted into low-sided wagons, 47 iron platform wagons converted into timber trucks, 2 iron oil tank wagons built	+2
2 twelve-ton travelling cranes built under the sanction conveyed in Bombay Government Resolution No. 1807 of 1895 ...	+2
1 five-ton travelling crane found in excess on the rolling stock verification	+1
Net Decrease ...	25

Gaekwar's Meshana Railway—(*Metre Gauge*).

There are no stores on this line, which is worked by the Rajputana-Malwa Railway with its own rolling stock.

Oodeyore-Chitor Railway—(*Metre Gauge*).

This line has been constructed by the Meywar Darbar and was opened for traffic on the 1st August 1895. It is being temporarily worked by the Rajputna-Malwa Railway. Information as regards the stores transactions of the line during the year is not available at present.

Southern Mahratta Railway System—(*Metre Gauge*).

The stores transactions for the year under report were as follows:—

		Rs.
Balance on 1st January 1895		19,77,344
	Rs.	
Southern Mahratta Railway... ...	19,42,143	
Guntakal-Hindupur „	1,850	
Bangalore-Hindupur „	33,331	
Receipts during the year		20,34,978
Total ...		40,12,302
Issues during the year		20,64,385
Total ...		19,47,917

The decrease of 29,407 is mainly due to sleepers obtained from England for renewals in the previous year being withdrawn from stock during the year under report.

The addition to stock during the year consisted of—

	Rs.
English supplies	6,40,406
Indian purchases	11,82,455
Returned stores	24,572
Manufacture in shops	1,86,387
Purchase from other Railways	1,158
Total ...	20,34,978

The issues during the same period were—

	Rs.
On Capital, Southern Mahratta Railway account ...	5,41,184
„ Revenue „ „ ...	14,71,586
„ Sales „ „ ...	42,580
„ Guntakal-Hindupur and Bangalore-Hindupur Railways	9,035
Total ...	20,64,385

The description of stores imported on indents from England is as detailed below :—

Fencing materials.
Blank card tickets.
Tyres, steel, for engines, &c.
Machines, weighing.
Boiler plates, steel.
Wheels and axles for trollies.
Surgical instruments.
Weigh-bridges.
Machines, punching.
Steel, paling.
Metals.
Boiler tubes.
Paints.
Crucibles.
Forges and vices.
Machines, planing.
Lathes.
Copper plates.
Machines, drilling.
Hose, leather.
Hides, buffalo.
Copper tubes.
Files.
Machines, slotting.
Copper ingots.
Antifriction metal.
Electrical stores.
Machines, emery, grinding.
Wall cranes.
Varnish.
Steel plates.
Jacks, screw, traversing.
Phospher, bronze.
Bolts, nuts and washers.
Machines, tube cutting.
Clothing, water-proof.
Lamps and lamp fittings.
Chains.
Miscellaneous stores.
Boiler fittings.
Beaters, pick.
Workshop machines.
Volute springs.
India rubber sheets.
Crank arms.
Buffers and fittings.
Steel flange rails.
Wheels and axles.
Switches and crossings.
Engine hoists.
Hammers, block.
Wash hand basins.

Brakes.

No automatic vacuum brakes have been fitted to stock running on this line, but the following have been fitted with Westinghouse brakes :—

Locomotives	3
Coaching vehicles	19

Couplings.

Jones' system of buffers and couplings is now generally in use on coaching stock, and goods vehicles are being fitted.

Lighting of carriages on Pintsch's Gas System.

Lighting carriages with Pintsch's Gas has not yet been introduced on this line, but an estimate has been prepared and is under the consideration of Government.

Important Changes.

One modified " F " class boiler has been fitted to Engine No. 119.

Seven double first class carriages were converted into composite first and second class, ordinary.

200 L. S. wagons were converted in 1894, and 150 more were dealt with during the year 1895 for the special purpose of carrying full loads of coal.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY (INCLUDING JETALSAR-RAJKOT RAILWAY)—(*Metre Gauge*).

The statement below shows the transactions of the stores Department:—

	Rs. a. p.	Rs. a. p.
Balance on 1st January 1895	.....	2,16,949 0 10
Receipts during 1895—		
Purchases in India	5,91,809 13 1	
Do. England	2,58,998 9 6	
		8,50,808 6 7
Total ...	.....	10,67,757 7 5
Issues during 1895—		
Capital	3,93,075 4 6	
Revenue	3,38,009 12 10	
Sales	17,314 9 10	
		7,48,399 11 2
Total, Issues ...	.....	
Balance on 31st December 1895 ...	.....	3,19,357 12 3

Out of Rs. 17,314-9-10, the sum of Rs. 16,495-1-5 is on account of coal sold to the Morvi Railway, and the remainder, Rs. 819-8-5, is for stores sold to the public.

Details of balance on hand on 31st December 1895—

	Rs. a. p.
General stores	2,24,771 6 2
Locomotive stores	83,597 5 5
Forms and stationery	10,989 0 8
Total ...	3,19,357 12 3

The principal items of stores comprising the balance in the magazine were :—

	Rs. a. p.
Bridge work	1,338 1 10
Engineers' plant	5,664 8 6
Workshop machinery and heavy tools ...	2,178 12 1
Ballast and permanent-way	1,02,995 0 1
Locomotive duplicates	65,503 2 5
Coaching and goods stock	13,392 12 5
Station machinery and fencing	9,944 5 9
Tools and miscellaneous stores	23,794 11 1
Total ...	2,24,771 6 2

Out of total stores in the magazine, Rs. 32,611-5-5 represents the value of depreciated or second-hand stores.

The Rs. 83,597-5-5 of locomotive-stores consist of stores as below :—

	Rs.	a.	p.
Carriage and wagon materials ...	... 5,197	2	8
Coal and coke	... 74,103	0	1
Timber	... 2,599	9	9
Petty and miscellaneous stores ...	... 1,697	8	11
Total Rs.	... 83,597	5	5

Out of Rs. 10,989-0-8 on account of forms and stationery, Rs. 10,244-0-1 represents the value of forms and books and Rs. 745-0-7 of stationery.

During the year, the following departments returned to magazine stores above Rs. 100 :—

	Rs.	a.	p.
Engineering Department	... 30,656	0	0
Locomotive and Carriage Department...	... 658	0	0
Traffic	... 657	0	0
Total	... 31,971	0	0

The principal items of stores returned by the Engineering Department are—

	Rs.	a.	p.
Rails	... 21,103	0	0
Sleepers, steel	... 6,758	0	0
Do. teak	... 476	0	0
Do. pine, creosoted	... 386	0	0
Crossings	... 316	0	0
Locomotive and Carriage Department—			
Corrugated iron sheets	... 231	0	0
Belting	... 132	0	0
Traffic Department—			
Cloth, broad, red	... 281	0	0
Flags	... 121	0	0
Weighing machine	... 123	0	0

Morvi Railway—(2′ 6″ *Gauge*).

One four-wheeled second class carriage with two compartments and one four-wheeled horse-box for two horses and a bogie inspection saloon were built during the year.

Three locomotives passed through the shops and were thoroughly repaired.

Seven carriages and twelve wagons have undergone thorough repairs.

Four covered wagons and two brake vans have been fitted with corrugated iron sheets.

Gaekwar-Dabhoi Railway (2′ 6″ *Gauge*).

The stores account closed on 31st December 1895 with a balance of Rs. 17,754, or Rs. 294 less than the balance at close of 1894 as under:—

	Rs.
Balance on 31st December 1895	17,754
Do. do 1894	18,048
Net decrease ...	294

The principal items of the balance on 31st December 1895 were :—

	Rs.
Ferrules, steel	4,934
Rails, steel	1,629
Springs, helical, for safety chains	2,148
Tubes, brass...	1,831
Tyres, steel	5,993

The rolling stock on 31st December 1895 consisted of the following :—

	Total Stock.	Undergoing or awaiting renewal or repairs.	In running order.
Locomotives	8	2	6
Coaching Vehicles—			
State saloons	2	...	2
Cooking carriage	1	...	1
Upper class	6	...	6
Lower class	26	...	26
Open wagons fitted with roof and door	4	...	4
Brake vans	2	...	2
Total, Coaching Vehicles ...	41	...	41
Goods Vehicles—			
Open wagons	151	...	151
Covered wagons	30	...	30
Timber trucks	6	...	6
Low sided wagons, bogie	27	...	27
Trucks for carriage of boilers, bogie...	2	...	2
Brake vans	6	...	6
Total, Goods Vehicles ...	222	...	222

None of the above stock are adapted for military purposes.

Chapter VI.—Capital Transactions.

(For the calendar year ending 31st December 1895.)

G. I. P. Railway—(*Standard Gauge*).

During the year, the capital authorized and subscribed was as under, the only change being in the conversion of £ 804,800 and £ 264,000 of 3½ and 3¼ per cent. debentures respectively into £ 1,068,800 debentures at 3 per cent. in July 1895 :—

	£.	Rs.
Authorized capital—		
Share Capital	20,000,000	
Debenture Stock	6,666,666	
Total ...	26,666,666	=29,09,09,084
Subscribed Capital—		
	£	
5 per cent., share Capital ...	20,000,000	
4 do. debenture stock ...	2,701,450	
3½ do. debentures	1,602,100	
3 do. do.	1,368,800	
Total interest-bearing Capital ...	25,672,350	
Add—		
Capital not bearing interest—		
Premia on Share Capital and Loans... ...	£ 229,870	
Transferred from Casualty Fund	74,187	
	304,057	
Less—		
Discount on Loans, £ 13,983		
Do on Debenture Stock ... 225,891	239,874	
	64,183	
Total Capital paid into Treasury ...	25,736,533	=28,07,62,174

Capital Expenditure—			
On Construction Account	...	25,177,653 =	27,46,65,307
On Stores in Suspense	...	465,180=	50,74,695
Less—			
Credit balance of advances in Suspense	...	18,403 =	2,00,766
Total	...	25,624,430=	27,95,39,236
Balance available of—			
Authorized Capital	...	1,042,236=	1,13,69,848
Subscribed Capital	...	112,103=	12,22,938

The following table gives the detail of Capital expenditure on final heads of account:—

	During 1895.	To end of 1895.
	Rs.	Rs.
Preliminary Expenses	.....	2,72,727
Establishment charges	.....	40,35,134
Engineering and Surveying Expenses	19,133	1,47,46,726
Law charges	.....	2,04,577
Stations and buildings	3,33,708	3,52,30,511
Commission on loans	.....	4,89,815
Passages to Bombay	.....	4,76,509
Permanent Way	1,42,243	6,63,00,413
Works	1,36,310	10,72,27,634
Electric Telegraph	.....	17,66,926
Locomotive and Carriage and Wagon expenses	2,59,789	4,39,14,335
Total, Final heads ...	8,91,183	27,46,65,307
Stores Suspense Account ...	Cr. 4,77,966	50,74,695
Advances in Suspense	16,907	Cr. 2,00,766
Total, Final and Suspense Heads ...	4,30,124	27,95,39,236

The individual Capital Works on which the expenditure during the year amounted to Rs. 25,000 or more were as follows:—

	Expenditure of the year.
	Rs.
Fitting Company's trains with Pintsch's lighting apparatus	1,26,991
Fitting Company's Coaching Stock with automatic vacuum brakes	1,13,167
Akola—Additions and alterations to station ...	79,576
Introduction of new system of signalling arrangements	70,384
Renewal of Kalimarchan, Naktwa and Sangli bridges	68,447
Strengthening old 30 feet girders along the line...	49,904
Renewal of Singla and Kareli bridges ...	38,750
Strengthening 62 feet girders of the Waghoor and Manair type	26,143

The interest charges paid for 1895 compare as follows with the net earnings of that year:—

		Rs.
Interest on share capital at 5 per cent.	...	1,09,09,091
Do. Debenture Stock at 4 per cent.	...	11,78,815
Do. Debentures at 3½ ,,	...	1,53,644
Do. do. at 3¼ ,,	...	6,14,817
Do. do. at 3 ,,	...	2,73,076
Total, Interest	...	1,31,29,443

Net earnings of the year less rent of leased lines and contribution to Provident Fund	...	1,47,38,431
Excess of net earnings over interest charges	...	16,08,988

Equivalent to 0·5745 per cent. on the interest bearing capital.

There were no overdrawals of capital during the year which closed with a balance of capital in the Company's favour of £ 112,103=Rs. 12,22,938.

DHOND AND MANMAD AND WARDHA COAL STATE RAILWAYS—(*Standard Gauge*).

The expenditure for the year 1895 was incurred on:—

		Rs.
Dhond and Manmad Railway	... ...	1,06,605
Wardha Coal State Railway	... ...	3,105

and it was incurred on the following heads:—

	Dhond and Manmad.	Wardha Coal.
	Rs.	Rs.
Land	152	...
Bridge Work	1,879	...
Fencing	18,002	1,248
Stations and Buildings	26,374	1,857
Suspense	60,198	...
Total ...	1,06,605	3,105

The total expenditure from commencement of operations to end of 1895 was as under:—

	Dhond and Manmad.	Wardha Coal.
	Rs.	Rs.
Expenditure in England... ...	44,28,718	9,47,839
Do. in India	68,89,529	40,42,955
	1,13,18,247	49,90,794

THE BERAR STATE RAILWAYS—(*Standard Gauge*).

Khamgaon Railway.—The capital outlay during the year amounted to Rs. 34,944 and was incurred on:—

		Rs.
Ballast and Permanent Way	... ...	32,190
Stations and Buildings	... ...	2,754
Total	...	34,944

Amraoti Railway.—There was an expenditure of Rs. 528 which was made up as under:—

		Rs.
Stations and Buildings	... ...	1,869
Less—Refund on account of stores sold	...	1,341
Total	...	528

The total capital cost of these lines from commencement of operations to end of 1895 was as under:—

		Rs.
Khamgaon State Railway	... ...	5,20,947
Amraoti State Railway	... ...	4,49,988

B. B. AND C. I. RAILWAY—(*Standard Gauge*).

No fresh capital was raised during the year. The Capital Account on 31st December 1895 was as follows :—

	£	£	Rs.
Capital authorised—			
Share Capital	6,250,000		
Debenture bonds	3,963,500		
		10,213,500	=11,14,20,000
Capital subscribed—			
Share Capital	6,250,000		
Debenture bonds converted into stock	1,300,300		
Debenture bonds at 3½ per cent. ...	1,238,500		
Do. at 3 per cent. ...	300,000		
Capital not bearing interest	18,419		
		9,107,219	=9,93,51,476
Capital Expenditure—			
On construction account		8,925,895	=9,73,73,400
„ Stores in Suspense		249,218	= 27,18,740
„ Advances in Suspense		Cr. 27,608	=Cr. 3,01,175
		9,147,505	=9,97,90,965
Balance available of—			
Capital authorised		1,065,995	1,16,29,035
Capital subscribed		Cr. 40,286	Cr. 4,39,489

The following table gives details of the Capital Expenditure on final heads of account :—

Heads.	During 1895.	To end of 1895.
	Rs.	Rs.
Preliminary expenses (England)	.....	1,88,733
Engineering and surveying (England)	.....	2,48,415
Establishment charges (do.)	.....	8,80,918
Payments in England on account of Officers in India, including passages and travelling expenses	.....	5,94,417
Construction, Plant and Workshop	.....	77,70,539
Earthwork and ballasting	1,43,746	90,26,507
Electric telegraph	.....	43,803
Fencing	14,234	13,05,976
General charges	17,281	76,42,953
Great Indian Peninsula Railway, Mahim branch purchase account	.....	67,000
Iron bridges	4,32,191	1,55,64,187
Level crossings	1,226	3,64,354
Masonry bridges and culverts	27,287	53,77,048
Permanent-way	2,64,915	2,17,79,603
Roads	.....	74,764
Rolling stock and machinery	7,85,495	1,77,51,917
Stations and bungalows	5,95,671	84,87,995
Dhejbara Survey	.....	3,003
Patri Line (Company's proportion)	.....	1,51,605
Wadhwan joint works account	.....	27,984
Sahibagh water-works joint account	.....	21,679
Total, final heads ...	22,82,046	9,73,73,400

The individual works on which heavy expenditure was incurred during the year were :—

	Expenditure of year. Rs.
New terminal station and re-arrangement of the yard at Colaba .	2,90,647
New grain-shed at Carnac Bridge	1,10,431
Crane siding and covered platform at Carnac Bridge ...	24,998
General Offices at Church Gate	1,17,657
Falkland Road over-bridge	23,129
Additional shunting siding at Dadar Junction	38,663

	Expenditure of year. Rs.
Doubling the line between Virar and Palghar	2,07,755
New station at Udvada	23,630
Renewal of warren girder bridges with plate girders ...	94,474
Doubling the line between Amroli and Miyagam	1,12,874
Do. between Miyagam and Itola	20,884
Re-construction of the Dhadhar bridge	26,985
Doubling the line between Itola and Baroda	1,13,735
Addition of a pair of pot-sleepers under each pair of 20-feet rails on the Godhra Branch	57,852
Additions and alterations to the station-yard at Godhra ..	90,918
Introduction of Pinteh's patent system of oil gas-lighting in carriages	1,07,043
Ten additional passenger engines	2,04,952
Twenty engines for Godhra-Rutlam Railway	2,21,468
Purchase of 100 ballast wagons from Godhra-Rutlam Railway .	57,500
Fifty open wagons, military type, for Godhra-Rutlam Railway .	32,141
Two hundred covered steel wagons for Godhra-Rutlam Railway.	1,42,709

The total capital bearing interest to end of 1895 was Rs. 9,91,50,545, and the guaranteed interest due to the company during 1895 was Rs. 46,55,632 as under:—

Paid in England	46,54,414
Paid in India	1,218
Total ...	46,55,632

Rs. 6,192 accrued during the year as interest on overdrawn Capital.

The net earnings of the year amounted to Rs. 1,10,47,538.

RAJPUTANA-MALWA RAILWAY SYSTEM AND PALANPUR-DEESA RAILWAY—(*Metre Gauge.*)

GODHRA-RUTLAM AND RUTLAM-UJJAIN RAILWAYS—(*Broad Gauge*).

The total Capital outlay on the whole system, including the Palanpur-Deesa, Godhra-Rutlam and Rutlam-Ujjain Railways, during and to end of 1895 was as follows:—

Heads of Account.	Rajputana-Malwa Railway System.		Palanpur-Deesa Railway.		Godhra-Rutlam Railway.		Rutlam-Ujjain Railway.	
	During 1895.	To end of 1895.	During 1895.	To end of 1895.	During 1895.	To end of 1895.	During 1895.	To end of 1895.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Preliminary Expenses	....	22,71,382	..	1973	....	1,71,597	* 8,587	8,587
Land	10,629	13,20,654	..	..	10,401	26,980	72	72
Formation	2,085	72,51,389	..	64,211	75,740	57,07,382	1,38,751	1,38,751
Bridge work	8,722	2,16,01,006	..	59,429	58,421	36,51,716	2,87,723	2,87,723
Fencing	99,806	27,86,305	..	7,791	52,952	2,46,985	2,175	2,175
Electric Telegraph	....	....	..	..	2,927	3,086	505	505
Ballast and Permanent-way	40,218	3,71,55,300	—2,853	2,03,207	1,54,488	38,21,838	3,33,386	3,33,386
Stations and Buildings	1,11,967	1,79,06,747	3,625	42,184	1,34,159	11,06,767	29,407	29,407
Plant	65,353	29,79,514	..	6,672	6,048	35,400	1,705	1,705
Rolling Stock	1,12,215	2,12,30,552	..	..	....	....	....	....
General Charges..	....	83,33,216	..	14,907	27,882	6,93,105	55,158	55,158
Loss by Exchange	....	49,08,971	..	..	....	....	....	....
Suspense	4,57,876	49,99,277	..	..	—4,74,174	88,179	14,00,920	14,00,920
Total, Direct Outlay ..	9,08,866	13,27,44,313	772	4,00,374	98,844	1,55,52,985	22,58,389	22,58,389
Indirect Outlay ..	....	17,86,415	..	..	....	....	....	.....
Grand Total ..	9,08,866	13,45,30,728	772	4,00,374	98,844	1,55,52,985	22,58,389	22,58,389

* This amount was spent in previous years, but transferred from head "41" to head "48" in 1895.

The Capital expenditure during 1895, including suspense, on the Rajputana-Malwa Railway system proper was incurred on the—

	Rs.
Rajputana-Malwa Railway...	7,74,023
Holkar Railway	...
Rewari-Ferozpore Railway...	85,881
Cawnpore-Achnera Railway	48,962
Total ...	9,08,866

The principal individual works on which expenditure was incurred during the year were—

Rajputana-Malwa Railway.

	Rs.
Additional water-way to bridge of two 40-feet spans at mile 532, Abu Division	10,411
Quarters for traffic staff at Phalera	12,094
Additions and alterations to the carriage and wagon shops at Ajmere	17,561
Fencing 20 miles of main line, Bandikui Division	36,143
Additional machinery for the Locomotive shops at Ajmere ...	15,096
Construction of 20 additional ordinary and 8 bogie third class carriages	99,773

Rewari-Ferozpore Railway.

Loss on iron sleepers obtained for the Rewari-Ferozpore Railway and issued to Palanpur-Deesa Railway	28,151
Fencing 12·72 miles of line	19,882
Fencing line from Kosli to Jharli, &c.	19,719
Additions and alterations at Bhiwani Station	9,548

Cawnpore-Achnera Railway.

Compensation for land	10,658
Fencing Hathras City station-yard	10,504
Sidings to cotton press at Hathras City...	13,871

Oodeypore-Chitor Railway.

(*Metre Gauge.*)

This line was opened on the 1st August 1895—it was constructed by the Meywar Darbar through their own agency.

Statements showing the Capital outlay on the line have not been finished by the Darbár.

The net earnings of the line from the 1st August 1895 to the end of the year amounted to Rs. 18,777.

The Gaekwar's Railways.

The expenditure during 1895 is exhibited in the following table :—

Particulars.	Dabhoi Railway (2' 6" gauge).	Petlad Railway (Standard gauge).	Mehsana Railway (Metre).
	Rs.	Rs.	Rs.
Preliminary expenses	—11	.....	.....
Formation	485	.....	3,497
Bridge work...	.....	.....	55,502
Fencing	.....	.....	1,548
Ballast and permanent way	1,913	.....	32,273
Stations and buildings	1,214	1,560	9,404
Plant	.....	.....	63
Rolling stock	16,185	.....	.....
General charges	491	58	61,362
Suspense	—294	—1,961	.....
Total ...	19,983	—343	1,63,649

The total capital outlay, including suspense, from commencement of operations to end 1895 was as follows :—

	Rs.
Dabhoi Railway	19,08,757
Petlad Railway	7,23,139
Mehsana Railway	32,55,044

Note—Expenditure on Surveys of new lines has been omitted.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre Gauge*).

Southern Mahratta Railway.

No additions were made to the capital of the Railway during the year, which stood at the close of December 1895 as shown below :—

	£.	Rs.
Stock and share capital	3,500,000	
Debentures	943,100	
Total ...	4,443,100 =	5,43,17,200
Capital not bearing interest	30,957 =	4,33,392
Advances by the Secretary of State ...	2,129,900 =	2,55,58,800
Total ...	6,603,957 =	8,03,09,392
Deduct—		
Capital expenditure as noted below ...		7,94,23,906
Balance available ...	.....	8,85,486

The expenditure of Rs. 7,94,23,906 was incurred as follows :—

	To end of December 1895.	Cost per mile.
	Rs.	Rs.
Way and Works	7,72,53,514	74,139
Rolling Stock	1,04,23,441	10,003
General Savings	64,91,541	6,229
Total, Final Heads ...	9,41,68,496	
Suspense Accounts	18,33,826	
Total ...	9,60,02,322	
Deduct—		
Government expenditure on Bellary-Kistna Railway	1,65,78,416	
Total ...	7,94,23,906	
Miles open...	1,042	

The debit of Rs. 18,33,826 under "Suspense" includes Rs. 3,99,732, the Mysore State Railway share of joint stores account which is now borne wholly on the Southern Mahratta Railway books. Deducting this sum reduces the balance of the Southern Mahratta Railway Suspense Account to Rs. 14,34,094 and leaves the balance of Southern Mahratta Railway capital to be spent at Rs. 12,85,218.

The expenditure on final heads during the year amounted to Rs. 5,31,579 and was incurred principally on the following works :—

	Rs.
Quarters for staff, institutes and running rooms	1,24,613
Workshops and store-buildings at Hubli	39,438
Protective Works, Poona and Kistna Divisions	28,954
Office for Resident Engineer, Gadag, and fencing Central Office, Dharwar	11,900
Additions to station buildings, passenger and loading platforms and sidings	51,786
Additional works for Locomotive and Traffic at Alnavar and Donakonda	32,590
Watering arrangements on Poona and Kistna Districts ...	12,794
Fitting Jones' Buffers to coaching and goods stock ...	22,000
Conversion of low sided wagons into coal wagons	7,100
Additional machinery, Hubli Workshops	90,400
Station and Office furniture	31,000

The following figures show the comparison of interest charges for 1895 with net earnings :—

	Rs.
Interest—	
On subscribed Capital at 3½ per cent.	22,10,242
„ debentures at 3½ per cent.	.....
„ „ „ 3¼ „	4,05,232
„ „ „ 3 „	1,38,622
„ advances by Secretary of State	12,63,070
„ Bellary-Kistna Railway Government expenditure ...	6,63,123
Total ...	46,80,289
Net earnings *less* contribution to Provident Fund ...	25,84,009
Excess of interest charges over earnings	20,96,280

Mysore State Railway.

The capital raised and expended stood as follows on 31st December 1895 :—

	£.	Rs.
Debentures	1,200,000 =	1,60,61,569
Capital not bearing interest	24,000 =	3,21,232
Total ...	1,224,000 =	1,63,82,801
Capital outlay to 31st December 1895 ...	.....	1,45,22,720
Balance of Capital unexpended ...	.....	18,60,081

The capital outlay of Rs. 1,45,22,720 was incurred as follows :—

	To end of December 1895.	Cost per mile.
	Rs.	Rs.
Way and Works	1,14,18,310	38,575
Rolling Stock	22,10,592	7,468
Establishment	8,96,121	3,027
Total ...	1,45,25,023	
Suspense account	—2,303	
Total ...	1,45,22,720	
Miles open,...	296	

The total capital outlay of Rs. 1,45,22,720 excludes the sum of Rs. 3,99,732, the Mysore State Railway share of joint stores borne on Southern Mahratta Railway books, allowing for which the unexpended balance of capital is reduced from Rs. 18,60,081 to Rs. 14,60,349.

The outlay during the year amounted to Rs. 1,75,400 and the following are some of the principal works undertaken :—

	Rs.
Conversion of temporary Yeshvantapur Station into a permanent one	21,000
Re-arrangement of station yard at Bangalore	33,000
Additions and alterations to Work-shops at Bangalore ...	8,000
Staff-quarters at Bangalore	35,000
Staff-quarters at Harihar	14,000
Additional machinery, Bangalore Shops	5,000
Fitting Jones' buffers to carriage and wagon stock	2,000

The following figures show the comparison of interest charges for 1895 with net earnings :—

	Rs.
Interest on debentures at 4 per cent.	8,70,947
Net earnings *less* contribution to Provident Fund	6,29,385
Excess of interest over net earnings	2,41,562

Mysore-Nanjangad extension.

The total capital outlay on this extension to end of December 1895 was Rs. 6,09,212 expended on

	Rs.	Cost per mile. Rs.
Way and Works	5,61,826	37,455
General Charges	39,931	2,662
Total ...	6,01,757	
Suspense Account	7,455	
Total ...	6,09,212	
Miles open ...		15

The expenditure during the year amounted to Rs. 6,100 and was incurred principally on land, fencing and sidings.

The net earnings of the line (after deducting contribution to Provident Fund) amounted for 1895 to Rs. 16,267 which is equivalent to a return of 2·67 per cent. on the Capital outlay.

Bangalore-Hindupur Section.

The total capital outlay on the section to end of December 1895 was Rs. 24,19,698 expended on :—

	Rs.	Cost per mile. Rs.
Way and Works	22,50,174	44,121
General Charges	1,43,378	2,811
Total ...	23,93,552	
Suspense accounts	26,146	
Total ...	24,19,698	
Miles open ...		51

The net earnings of this section amounted for 1895 to Rs. 79,088, which is equivalent to a return of 3·27 per cent. on the total capital outlay.

Kolhapur State Railway.

The total capital outlay on this Railway to end of December 1895 was Rs. 23,69,206 expended on :—

	Rs.	Cost per mile. Rs.
Way and Works	22,66,616	78,159
General Charges	1,02,590	3,537
Total ...	23,69,206	
Miles open ...		29

The net earnings of the line (after deducting contribution to Provident Fund) was Rs. 50,496 which is equivalent to a return of 2·13 per cent. on the total capital outlay.

GUNTAKAL-MYSORE FRONTIER RAILWAY.

The total capital outlay to end of December 1895 was as follows :—

	Rs.	Cost per mile. Rs.
Way and works	52,56,466	43,804
General charges	6,15,273	5,127
	58,71,739	
Miles open ...		120

The expenditure during the year, after deducting credits for materials transferred from works, amounted to Rs. 15,175 and was incurred principally on the following works :—

	Rs.
1st equipment of stations ...	... 4,219
Ash-pits at Dharmavaram ...	... 6,432
Extending goods sheds ...	... 4,526

The following figures show the comparison of interest charges for 1895 with net earnings :—

	Rs.
Interest on capital at 4 per cent	... 2,34,639
Net earnings	... 1,79,839
Excess of interest over net earnings	... 54,800

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

The total capital outlay, including suspense, on final heads of account, to the 31st December 1895, was Rs. 1,76,00,032. The distribution of this amount over the four sections of the Railway was as shown below :—

	Rs.
Bhavnagar	... 71,02,332
Gondal	... 47,65,105
Junagad	... 38,58,487
Porbandar	... 18,74,108
Total	... 1,76,00,032

The amount held in suspense was as under :—

	Rs.
Bhavnagar	... 1,33,333
Gondal	... 1,20,051
Junagad	... 77,189
Porbandar	... 38,281
Total	... 3,68,854

The capital expenditure of the year on final heads amounted to Rs. 2,51,534 distributed between the four sections as under :—

	Rs.
Bhavnagar	... 9,833
Gondal	... 2,470
Junagad	... 2,34,531
Porbandar	... 4,700
Total	... 2,51,534

Out of this amount, Rs. 80,504 were spent on the reconstruction of the Oojet Bridge, on the Jetalsar-Verawal Section. Rs. 1,49,625 were charged for ballast and permanent way and debited against the Junagad Section, but a sum of Rs. 1,45,250 out of this amount is only a book adjustment in connection with sleeper renewals on the Jetalsar-Verawal Section. A hydraulic wheel press was purchased for the workshops at a cost of Rs. 11,842.

The following statement shows the total capital outlay, including suspense, on each section, to the end of 1895, and the financial results thereon, interest being calculated at 4 per cent:—

	Bhavnagar.	Gondal-Porbandar.	Junagad.	Total.
	Rs.	Rs.	Rs.	Rs.
Capital outlay to end of 1895 ...	71,02,332	66,39,213	38,58,487	1,76,00,032
Interest on capital outlay for 1895.	2,83,983	2,65,634	1,51,075	7,00,692
Net earnings for 1895	5,50,577	*2,66,069	4,573	8,21,219
Difference between net earnings for 1895 and interest	+2,66,594	+*434	—1,46,502	+1,20,526
Total interest from commencement to end of 1895	40,76,299	26,81,710	10,83,766	78,41,775
Total net earnings to end of 1895.	54,39,920	*20,74,501	2,86,762	78,01,183
Difference between total interest and total net earnings to end of 1895	+13,63,621	—6,07,209	—7,97,004	—40,592
Percentage of net earnings on capital outlay for 1895	7·75	4·02	0·12	4·67

* Includes loss incurred in working the Porbandar Dock Estate.

The results of the year were in the aggregate better than those of 1894, the percentage of net earnings to capital outlay in the latter being 4·07 against 4·67 in 1895.

Jetalsar-Rajkot Railway—(*Metre Gauge*).

The total capital outlay on final heads of account to 31st December 1895 was Rs. 15,03,585 expended on :—

		Cost per mile.
	Rs.	Rs.
Way and works	14,15,482	30,618
General charges	82,981	1,794
Total ...	14,98,463	
Suspense account...	5,122	
	15,03,585	
Miles open ...		46·23

The above figures do not include the cost of rolling stock, the line being worked by the Bhavnagar-Gondal-Junagad-Porbandar Railway Administration with their own stock.

The expenditure during the year amounted to Rs. 17,064 and was incurred chiefly in providing ballast for the line; as also in extending the station-house at Rajkotpura, and providing a goods depôt at the same station, as well as the erection of a goods-shed at Rajkot Junction.

The net earnings of the line for 1895 amounted to Rs. 77,447 which is equivalent to a return of 5·15 on the capital outlay.

MORVI RAILWAY—(2' 6" *Gauge*).

The total capital expenditure on final heads of accounts to the 31st December 1895 was Rs. 23,29,426. The amount held in suspense was Rs. 69,970, thus making the total capital outlay of Rs. 23,99,396.

The following is the detail of the capital expenditure on final heads of accounts:—

	During 1895.	To end of 1895.
	Rs. a. p.	Rs. a. p.
Preliminary expenses	.....	18,134 7 0
Land	.....	1,171 7 9
Construction of line	3,177 12 2	6,82,331 13 4
Ballast and permanent way...	1,29,406 4 5	11,05,142 1 2
Stations and buildings	4,825 13 1	43,805 2 0
Plant	215 7 7	14,387 12 3
Establishment...	.....	1,02,846 13 0
Rolling Stock.		
Locomotives	14,104 12 9	1,26,098 11 6
Carriages and wagons...	3,743 3 6	2,35,507 2 11
Total ...	1,26,832 12 10	23,29,425 6 11

The total capital expenditure for the year amounted to Rs. 1,26,833, incurred chiefly on construction of line, ballast and permanent way, and stations and buildings, and carriage and wagon stock.

The increased outlay under "construction of line" was chiefly due to making a piece of road from Morvi Station to engine-shed including a culvert.

The increase under ballast and permanent way was due to the difference between the cost of about 18 miles 41¼ lbs. metre gauge rails substituted for 19 lbs. old ones on the Rajkot branch, being debited to the head.

The increase under "stations and buildings" was due to the cost of moiety of station charges paid to Bhavnagar-Gondal-Junagad-Porbandar Railway for Rajkot Junction Station, and also erecting a goods-shed at Wadhwan and a carriage-shed at Rajkot.

The increase under "carriage and wagons" was due to the provision of three additional coaching vehicles to the stock.

There was a decrease under "locomotive stock" due to credit afforded to this head for the cost of two locomotives returned to stores.

The following statement shows the interest charges at 4 per cent per annum on the total capital outlay including suspense to the end of 1895.

	Rs.
Capital outlay to end of 1895	23,99,396
Interest on capital outlay for 1895	93,186
Net earnings for 1895	200,127
Difference for 1895	1,06,941
Total interest from beginning to end of 1895 ...	6,48,702
Total net earnings to end of 1895	9,10,766
Difference to end of 1895	2,62,064

Chapter VII.—Revenue Transactions.

(*For the calendar year ending* 31*st December* 1895.)

GREAT INDIAN PENINSULA RAILWAY—(*Standard Gauge*).

The result of the year's transactions as compared with 1894 is shown in the subjoined table :—

	1894.	1895.	Difference.
	Rs.	Rs.	Rs.
Gross earnings...	3,62,74,296	3,37,90,193	—24,84,103
Working expenses	2,00,17,713	1,90,51,762	—9,65,951
Net earnings	1,62,56,583	1,47,38,431	—15,18,152
Percentage of expenses on earnings ...	55·18	56·38	+1·20
	Miles.	Miles.	Miles.
Train mileage	9,174,096	8,752,066	—422,030
	Rs.	Rs.	Rs.
Receipts per train mile	3·95	3·86	—0·09
Expenses do.	2·18	2·18	.....
Net receipts do.	1·77	1·68	—0·09
	Miles.	Miles.	Miles.
Open miles	1,490·234	1,490·234	.....
	Rs.	Rs.	Rs.
Receipts per open mile	24,341	22,674	—1,667
Expenses do.	13,433	12,784	—649
Net receipts do.	10,908	9,890	—1,018
Percentage of net earnings on Capital bearing interest	5·80	5·26	—0·54

The following table gives the details of earnings and working expenses for 1895 compared with 1894 :—

	1894.	1895.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	93,72,943	97,99,477	+4,26,534
Goods	2,65,38,784	2,36,07,088	—29,31,696
Electric Telegraph	72,722	75,216	+2,494
Sundries	2,89,847	3,08,412	+18,565
Total ...	3,62,74,296	3,37,90,193	—24,84,103

	1894.	1895.	Difference.
Working Expenses.	Rs.	Rs.	Rs.
Maintenance of way, works and stations.	50,81,351	45,58,115	—5,23,236
Locomotive expenses	74,66,224	74,56,219	—10,005
Carriage and wagon expenses ...	17,18,825	16,08,962	—1,09,863
Traffic expenses	31,10,406	29,37,420	—1,72,986
General charges	13,96,124	13,69,836	—26,288
Special and miscellaneous expenditure...	5,67,948	4,59,418	—1,08,530
Total ...	1,93,40,878	1,83,89,970	—9,50,908
Rent of leased lines	5,50,478	5,64,222	+13,744
Contribution to Provident Fund ...	1,26,357	97,570	—28,787
Total Working Expenses ...	2,00,17,713	1,90,51,762	—9,65,951
Net Earnings ...	1,62,56,583	1,47,38,431	—15,18,152

The mean mileage worked during the year was the same as in 1894, *viz.* 1,490·234, but there was a net increase of 3½ miles in the length of sidings. The sidings at Wári Bandar, Nágpur, Byculla, Kurla, Itársi, Poona and Dhond were increased by 4 miles and those at Dharamkundi, Kirkee and the diversion at Bori decreased by 34 chains and 74 links.

The gross earnings and working expenses of the year amounted respectively to Rs. 3,37,90,193 and Rs. 1,90,51,762 as against Rs. 3,62,74,296 and Rs. 2,00,17,713 in 1894, resulting in a falling off in net earnings of Rs. 15,18,152.

The traffic has been continually declining since 1892 as will be observed from the following figures of gross earnings :—

	Rs.
1891	4,52,55,333
1892	4,06,65,627
1893	3,88,13,741
1894	3,62,74,296
1895	3,37,90,193

Earnings.

The following table compares the coaching traffic during 1895 with that of 1894 :—

	1894.		1895.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First Class	55,507	4,45,679	62,928	4,79,369	+7421	+33,690
Second Class	299,235	7,27,696	312,364	7,46,068	+13,129	+18,372
Third Class, Mail ...	560,910	10,16,942	539,812	9.74,970	−21,098	−41,972
Do. other trains.	10,000,008	57,16,692	10,578,585	59,48,793	+578,577	+2,32,101
Total ...	10,915,660	79,07,009	11,493,689	81,49,200	+578,029	+2,42,191
Other receipts	...	14,65,934	...	16,50,277	...	+1,84,343
Grand Total ...	10,915,660	93,72,943	11,493,689	97,99,477	+5,78,029	+4,26,534

The total coaching traffic increased by Rs, 4,26,534. The number of passengers carried including season ticket-holders increased by 578,029 while the earnings from them increased by Rs. 2,42,191. The other coaching receipts increased by Rs. 1,84,343. The largest increase was in the 3rd class passengers by ordinary trains and was due partly to brisker traffic between Bombay and its suburbs and on the south-east section and partly to larger attendance at

the Pandharpur fair than in 1894 when cholera was prevalent. The running of a slow mixed train between Poona and Raichore and the diversion of passengers *vid* Southern Maratha Railway during the recent breaks on the south-east line partly account for the decrease in 3rd class passengers by mail which was 21,098 in number and Rs. 41,972 in receipts. The increase under "other receipts" is chiefly due to larger receipts from military baggage, horses, carriages and dogs, parcels traffic and miscellaneous receipts. The Chitral Relief Expedition acounts chiefly for an increase of Rs. 1,00,057 in the earnings from the conveyance of military baggage and carriages, horses, dogs, &c.; and the larger consignments of fruit from the Madras and Southern Maratha Railways were the principal cause of an increase of Rs. 66,103 in the parcels traffic, and the haulage of special carriages mainly accounts for an increase of Rs. 19,596 in the miscellaneous coaching receipts.

The following table shows the fluctuations in goods traffic as compared with the traffic for 1894 :—

	1894.		1895.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General merchandize ...	1,895,714	2,44,34,761	1,714,327	2,15,61,847	−181,387	−28,72,914
Military stores ...	10,160	2,05,871	8,104	1,65751	−2,056	−40,120
Railway material for construction... ...	41,997	33,623	31,060	33,655	−10,937	+32
Coal for public... ...	97,290	2,44,647	122,956	3,78,300	+25,666	+1,33,653
Coal for construction ...	139	692	206	872	+67	+180
Coal for Revenue ...	215,867	6,30,198	175,858	4,98,446	−40,009	−1,31,752
Revenue Stores ...	443,054	8,01,084	382,485	7,67,850	−60,569	−33,234
	No.		No.		No.	
Live Stock	3,66,432	1,47,843	335,767	1,67,447	−30,665	+19,604
Rents, &c.	...	40,065	...	32,920	...	−7,145
Total ...	2,704,221	2,65,38,784	2,434,996	2,36,07,088	−269,225	−29,31,696

The goods traffic continued to fall during the year, the net decrease being Rs. 29,31,696. The greatest decrease Rs. 28,72,914 is in general merchandize. While the earnings from coal for the public increased by Rs. 1,33,653, those from coal for revenue decreased by Rs. 1,31,752. The conveyance of military stores brought in Rs. 40,120 less than in 1894. The failure of the grain and seed crops in the Central Provinces where two bad seasons in succession had been experienced, and the diversion of the Indore traffic *vid* Khandwa to the new route *vid* the Godhra-Rutlam line, are stated as the chief reasons for the decrease in goods traffic. The live stock traffic, public and military, increased by Rs. 19,604 in receipts and 30,665 in number.

The fluctuations in the more important commodities carried during 1894 and 1895 are shown in the following statement :—

	1894.		1895.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Coal and Coke	99,713	2,52,099	124,290	3,81,866	+24,577	+1,29,767
Cotton, Raw	164,926	40,55,818	191,748	44,66,601	+26,822	+4,10,783
Do. , Manufactured	46,170	12,28,850	43,165	10,89,154	−3,005	−1,39,696
Drugs and Chemicals	32,863	4,58,078	19,161	2,75,184	−13,702	−1,82,894
Dyes and Tans	59,785	7,64,565	52,413	6,06,890	−7,332	−1,57,675
Grain and Pulse...	438,573	37,89,540	412,233	35,18,089	−26,340	−271,451
Hides and Skins...	15,570	3,65,013	16,055	3,57,243	+485	−7,770
Horns	1,018	21,244	1,112	23,023	+94	+1,779
Jute	23,250	3,21,971	20,813	2,92,023	−2,437	−29,948
Lac	710	7,325	700	8,165	−10	+840
Leather, Manufactured... ...	2,068	36,934	2,736	52,383	+668	+15,454
Liquors	9,211	1,44,567	9,299	1,49,748	+88	+5,181
Metals	47,932	7,59,526	43,869	6,72,787	−4,063	−86,739
Oils	48,966	8,26,624	42,206	6,62,796	−6,760	−1,63,828
Oilseeds	447,002	53,02,255	280,104	31,35,407	−166,896	−21,66,848
Opium	2,399	1,27,131	1,247	62,116	−1,152	−65,015
Paper and Pasteboard ...	4,065	1,02,828	4,142	1,00,289	+77	−2,539
Provisions	79,235	11,57,720	78,150	11,60,902	−1,085	+3,182

	1894.		1895.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Railway Plant, &c.	9,512	1,52,251	11,555	1,76,207	+2,043	+23,956
Salt	134,784	16,64,049	1,34,341	15,91,641	—443	—72,408
Saltpetre, &c.	2,405	34,124	3,155	46,439	+750	+12,315
Silk, Raw	34	1,393	29	1,163	—5	—230
Silk, Piece-goods	384	10,240	401	10,522	+17	+282
Spices	24,029	4,25,764	20,860	3,67,903	—3,169	—57,861
Stone and Lime	15,189	1,01,829	16,645	1,04,874	+1,456	+3,045
Sugar	64,464	8,15,681	60,377	7,65,356	—4,087	—50,325
Tea	423	14,372	386	12,265	—37	—2,107
Timber	114,619	5,23,140	136,331	5,64,260	+21,712	+41,120
Tobacco	6,068	94,573	5,217	81,843	—851	—12,730
Wool, Raw	336	10,738	275	7,477	—61	—2,661
Do. Manufactured	1,314	26,289	1,183	24,259	—131	—2,030

While the traffic in oilseeds, grain and pulse, drugs and chemicals, oils, dyes and tans and cotton manufactured shows decreases of Rs. 21,66,848, Rs. 2,71,451, Rs. 1,82,894, Rs. 1,63,828, Rs. 1,57,675 and Rs. 1,39,696 respectively, that in cotton (raw), coal and coke and timber has increased by Rs. 4,10,783, Rs. 1,29,767 and Rs. 41,120 respectively. Though in the first half of the year, the traffic in cotton (raw) declined to the extent of Rs. 9,04,032 in consequence of the cotton crop in the Berars and in parts of the Deccan being below the average, that in the second half increased by Rs. 13,14,815. It is stated that the cotton plants in the districts along the G. I. P. Railway system suffered to some extent from want of rain in the earlier stages of their growth, but the crop was generally of a favorable character and obtained in good condition, that the first pickings commenced about a month in advance of the normal period and that this circumstance, combined with a strong demand in Bombay, led to a heavy traffic during the months of November and December last. Nearly two-thirds of the increase in coal and coke was derived in the first half and one-third in the second half of the year.

The receipts from Telegraph traffic increased by Rs. 2,794 and sundry receipts by Rs. 18,565. The latter increase was caused by the larger sales of revenue stores and by the adjustment of a portion of recoveries made from the Bengal-Nagpur Railway for supervision, &c., on landing and despatching its materials hitherto held in suspense.

Working Expenses.

The following are the principal fluctuations in working expenses :—

(i) A net decrease of Rs. 5,23,236 in maintenance of way, works and stations, due chiefly to the issue of smaller quantities of steel rails, pot sleepers, tie-bars, &c., and to the more favourable rates of issue, to the completion in 1894 of the works in connection with the slips at Thull Ghat, Engine Depôt at Byculla and the new stations at Chinchpokli, Currey Road and Curla, the extensive repairs to the quarters at Bhusával and of the restoration of the Mussuck Bridge, and lastly to the suspension of outlay on platelayers' huts.

(ii) A net decrease of Rs. 10,005 in locomotive expenses, due chiefly to the average rate of issue of coal being smaller in consequence of lower prices of English and Singareni coals.

(iii) A net decrease of Rs. 1,09,863 in carriage and wagon expenses, due chiefly to the curtailment of repair operations of coaching and goods vehicles, to the lower price of the new iron work for the renewal of covered goods wagons, to smaller issues of new material, and to the use of second hand materials as far as possible.

(iv) A net decrease of Rs. 1,72,986 in traffic expenses, due to the reduction of station and train staff and to the absence of men on compulsory leave consequent upon the fall in traffic.

(v) A net decrease of Rs. 26,288 in general charges, due chiefly to reduction in the staff of signallers and to the absence of men on compulsory leave.

(vi) A net decrease of Rs. 1,08,530 in special and miscellaneous expenses, due chiefly to increase in the receipts and decrease in the payments of mileage and demurrage.

The foregoing reductions would have been much greater, but for an increase of Rs. 7,21,245 in the charges for loss by exchange caused by larger issues of English Stores and a decline in the exchange rate during the first half year from 13·27*d.* to 13·081*d.*

Rents of leased lines showed an increase of Rs. 13,744, consequent on the increase of traffic on the State Railways worked by the G. I. P. Railway.

The contribution to Provident Fund decreased by Rs. 28,787, because the net earnings of the first half of 1895 on which it was calculated were proportionately less than those of the first half of 1894.

The divisible surplus profits of the first half of 1895 at the date of submission of accounts amounted to Rs. 32,37,282 as against Rs. 60,66,758 in the preceding year. There were no surplus profits in the second half of 1895, the net earnings, amounting to Rs. 51,37,066, having fallen short of the guaranteed interest and rent of leased lines by Rs. 16,50,197. The shortage for the second half of 1894 was Rs. 29,90,497.

The loss to the State for 1895 was Rs. 39,920 and the figures for the last five years compare as follows :—

	Rs.
1891	48,74,813 gain.
1892	32,86,836 „
1893	19,18,723 „
1894	44,277 „
1895	39,920 loss.

The outstandings to be recovered, as ascertained on 14th May 1896, were Rs. 598 for the first half and Rs. 7,203 for the second half of 1895, and the amount of surplus profits realized but remaining unpaid to the Railway Company for the first half of 1895 was Rs. 264.

DHOND AND MANMAD AND WARDHA COAL STATE RAILWAYS—(*Standard Gauge.*)

The results of the year's transactions as compared with the previous year are shown in the following table :—

Particulars.	Dhond and Manmad Railway.			Wardha Coal Railway.		
	1894.	1895.	Difference.	1894.	1895.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	13,61,866	14,04,021	42,155	2,20,237	1,93,551	—26,686
Working expenses	9,79,873	9,95,788	15,915	1,30,947	1,17,189	—13,758
Net earnings	3,81,993	4,08,233	26,240	89,290	76,362	—12,928
Percentage of expenses on earnings...	71·95	70 92	—1·03	59·45	60·54	1·09
	Train Miles.	Train Miles.	Train Miles.	Train Miles.	Train Miles.	Train Miles.
Train mileage	5,23,438	5,24,889	1,451	1,08,216	1,07,958	—258
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile ...	2·60	2·67	·07	2·04	1·79	—0·25
Expenses per train mile ...	1·87	1·89	·02	1·21	1·09	—0·12
Net earnings per train mile ...	0·73	·78	·05	0·83	·70	—0·13
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Open miles...	145·44	145·44	.....	44·88	44·88	.....
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Earnings per open mile ...	9,364	9,653	289	4,907	4,312	—595
Expenses per open mile ...	6,737	6,846	109	2,918	2,611	—307
Net earnings per open mile ...	2,627	2,807	180	1,989	1,701	—288
Percentage of net earnings on total capital outlay including suspense	3·41	3·61	·2	1·79	1·53	—·26

The working expenses shown above for the Dhond and Manmad State Railway consist of the following :—

	1894. Rs.	1895. Rs.
(*a*) Amount paid to the G. I. P. Railway Company based on the sliding scale of percentages ...	9,66,924	9,82,815
(*b*) Amount paid to Government Telegraph Department for interest on capital cost of Telegraph line	7,787	7,794
(*c*) Amount paid to G. I. P. Railway Company for interest on capital cost of Dhond and Manmad Permanent Staff quarters	5,162	5,179
	9,79,873	9,95,788

The working expenses of the Wardha Coal State Railway shown above consist of the following :—

	1894. Rs.	1895. Rs.
(*a*) Paid to the Company at their rate of expenses on gross receipts	1,18,450	1,06,027
(*b*) 5 per cent. for use of Company's Rolling Stock	11,012	9,678
(*c*) Amount paid to the Government Telegraph Department for interest and rent, &c.	1,485	1,485
Total ...	1,30,947	1,17,190

Traffic and Working.

The revenue derived during 1895 is compared with that of the preceding year in the following table :—

Particulars.	Dhond and Manmad.			Wardha Coal.		
	1894.	1895.	Difference.	1894.	1895.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	6,01,911	6,69,911	68,000	39,516	39,000	—516
Goods	7,51,221	7,25,473	—25,748	1,78,281	1,52,542	—25,739
Electric Telegraph ...	2,893	2,802	—91	1,066	589	—477
Sundries...	5,841	5,835	—6	1,374	1,420	46
Total ...	13,61,866	14,04,021	42,155	2,20,237	1,93,551	—26,686

The following statement shows the receipts derived from the several classes of passengers during 1895 compared with 1894:—

	Dhond and Manmad.						Wardha Coal.					
	1894.		1895.		Difference.		1894.		1895.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
First Class	2,797½	14,357	2,789½	14,899	—8	542	425	1,311	390	1,114	—35	—197
Second Class	11,252	24,994	10,392	24,301	—860	—693	496½	678	303	422	—193½	—256
Third Class by Mail ...	...	...	...	...	...	...	387½	251	480	287	92½	36
Third Class by other trains	696,904	5,00,672	773,361½	5,38,178	76,457½	37,506	128,480	34,599	125,176	34,318	—3,304	—281
Total ...	710,953½	5,40,023	786,543	5,77,378	75,589½	37,355	129,789	36,839	126,349	36,141	—3,440	—698
Other Receipts ...	...	61,888	...	92,533	...	30,645	...	2,677	...	2,859	...	182
Total Coaching ...	710,953½	6,01,911	786,543	6,69,911	75,589½	68,000	129,789	39,516	126,349	39,000	—3,440	—516

The important variations are the increases on Dhond and Manmád State Railway under "Third class by other trains" and "Other Receipts."

The goods traffic during 1895 under each of the classified heads is compared with the year 1894 in the subjoined statement :—

Particulars.	Dhond and Manmád.			Wardha Coal.		
	1894.	1895.	Difference.	1894.	1895.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Merchandise, General ...	7,11,646	6,93,919	—17,727	88,512	65,412	—23,100
Military Stores	15,514	10,151	—5,363	6	31	25
Railway Material for Construction	1,363	490	—873	5	2	—3
Coal	6,720	3,712	—3,008	88,677	85,755	—2,922
Revenue Stores	8,725	10,560	1,835	592	954	362
Other items	7,253	6,641	—612	489	388	—101
Total ...	7,51,221	7,25,473	—25,748	1,78,281	1,52,542	—25,739

The important variations are the decreases on the Dhond and Manmád and Wardha Coal State Railways under "Merchandise, General."

The Berars State Railways—(*Standard Gauge*).

These lines are worked by the G. I. P. Railway Company. The results of the year's transactions are compared with those of 1894 in the following table :—

Particulars.	Khamgaon.			Amraoti.		
	1894.	1895.	Difference.	1894.	1895.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	53,073	64,227	11,154	1,02,521	97,817	—4,704
Working expenses	31,106	38,196	7,090	60,611	59,565	—1,046
Net earnings	21,967	26,031	4,064	41,910	38,252	—3,658
Percentage of expenses on earnings	58·61	59·47	·86	59·12	60·89	1·77
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Train mileage	12,120	16,892	4,772	21,906	23,570	1,664
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile	4·38	3·80	—·58	4·68	4·15	—·53
Expenses per train mile	2·57	2·26	—·31	2·77	2·53	—·24
Net receipts per train mile ...	1·81	1·54	—·27	1·91	1·62	—·29
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Open miles	7·55	7·55	...	5·44	5·44	...
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Earnings per open mile	7,030	8,506	1,476	18,846	17,981	—865
Expenses per open mile	4,120	5,059	939	11,142	10,949	—193
Net earnings per open mile ...	2,910	3,447	537	7,704	7,032	—672
Percentage of net earnings on Total Capital outlay, including Suspense	4·52	4·99	·47	9·32	8·5	—·82

The working expenses shown above consist of the following :—

	Khamgaon.		Amraoti.	
	1894.	1895.	1894.	1895.
	Rs.	Rs.	Rs.	Rs.
Paid to the Company at their rate of working expenses on gross receipts ...	28,452	34,985	54,600	53,789
5 per cent. for use of Company's Rolling Stock	2,654	3,211	5,126	4,891
Interest on Capital cost of additional short platform at Badnera Station... ...	...	...	885	885
Total ...	31,106	38,196	60,611	59,565

Traffic and Working.

The figures for 1894 and 1895 under the four main heads of receipts are compared in the subjoined table :—

	Khamgaon Railway.			Amraoti Railway.		
	1894.	1895.	Difference.	1894.	1895.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	12,463	12,776	313	30,324	29,896	—428
Goods	40,242	51,096	10,854	70,558	66,451	—4,107
Electric Telegraph	113	148	35	1,573	1,286	—287
Sundries	255	207	—48	66	184	118
Total ...	53,073	64,227	11,154	1,02,521	97,817	—4,704

The coaching receipts for the year under review were derived from—

	Khamgaon Railway.						Amraoti Railway.					
	1894.		1895.		Difference.		1894.		1895.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
First Class	262½	131	346	179	83½	48	1,328	492	1,249	463	—79	—29
Second Class ...	1,259	311	1,261½	311	2½	..	6,294½	1,175	6,429	1,188	134½	13
Third Class ...	1,04,246½	11,422	105,837½	11,585	1,591	163	3,47,655½	27,218	3,41,383	26,717	—6,272½	—501
Total ...	1,05,768	11,864	1,07,445	12,075	1,677	211	3,55,278	28,885	3,49,061	28,368	—6,217	—517
Other receipts ...	...	599	...	701	...	102	..	1,439	..	1,528	..	89
Total ...	1,05,768	12,463	1,07,445	12,776	1,677	313	3,55,278	30,324	3,49,061	29,896	—6,217	—428

The goods traffic during 1895 under each of the classified heads is as follows :—

Particulars.	Khamgaon Railway.			Amraoti Railway.		
	1894.	1895.	Difference.	1894.	1895.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Merchandise, General ...	39,757	50,387	10,630	68,712	64,865	—3,847
Military Stores	...	2	2	137	74	—63
Railway Material for Construction	...	2	2	...	...	...
Coal	209	141	—68	1,153	1,158	5
Revenue Stores	46	346	300	6	10	4
Other Goods Traffic	230	218	—12	550	344	—206
Total ...	40,242	51,096	10,854	70,558	66,451	—4,107

The two large variations are the increase on the Khamgaon and decrease on the Amraoti Railways under "Merchandise, General."

B. B. AND C. I. RAILWAY—(*Standard Gauge*).

General Results.

The result of the year's transactions as compared with 1894 is shown in the subjoined table :—

	1894.	1895.	Difference.
	Rs.	Rs.	Rs.
Gross Earnings	1,59,48,483	1,75,53,067	16,04,584
Working Expenses	57,75,782	65,05,529	7,29,747
Net Earnings	1,01,72,701	1,10,47,538	8,74,837
Percentage of Expenses on Earnings ...	36·22	37·06	0·84
	Miles.	Miles.	Miles.
Train mileage	24,63,681	26,10,893	1,47,212
	Rs.	Rs.	Rs.
Receipts per train mile	6·47	6·72	0·25
Expenses per do.	2·34	2·49	0·15
Net receipts per do.	4·13	4·23	0·10
	Miles.	Miles.	Miles.
Open miles	461	461	.....
	Rs.	Rs.	Rs.
Receipts per open mile	34,595	38,076	3,481
Expenses per do.	12,529	14,112	1,583
Net receipts per do.	22,066	23,964	1,898
Percentage of net Earnings on Capital bearing Interest	10·26	11·14	0·88

The total amount payable to the Railway Company on account of surplus profits in comparsion with 1894 is shown in the following table :—

	1894.	1895.	Difference.
	Rs.	Rs.	Rs.
Net Earnings	1,01,72,701	1,10,47,538	8,74,837
Deduct—			
Guaranteed Interest	45,57,450	46,55,632	98,182
Interest on overdrawn Capital ...	42,097	6,192	—35,905
Contribution to Provident Fund ...	1,01,727	1,10,475	8,748
Total ...	47,01,274	47,72,299	71,025
Balance Surplus profits ...	54,71,427	62,75,239	8,03,812
Moiety payable to the Company ...	27,35,713	31,37,619	4,01,906
Guaranteed Interest	45,57,450	46,55,632	98,182
Add—			
(*a*) Total payable to the Company ...	72,93,163	77,93,251	5,00,088
Percentage on total Capital bearing Interest, *viz.*, Rs. 9,91,50,545, for 1895	7·36	7·86	·50
(*b*) Amount payable to the Company for Rájputána-Malwa Railway($\frac{1}{5}$th of surplus profits for 1895) ...	16,90,156	14,48,444	—2,41,712
Total payable to the Company (*a* + *b*)...	89,83,319	92,41,695	2,58,376
Percentage on total Capital bearing Interest	9·06	9·32	·26

Traffic and Working.

The following table gives the details of earnings and working expenses for the year 1895, as compared with 1894 :—

	1894.	1895.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	49,87,143	53,43,524	+3,56,381
Goods	1,05,81,899	1,19,18,571	+13,36,672
Electric Telegraph	47,091	47,443	+352
Sundries	3,32,350	2,43,529	—88,821
Total ...	1,59,48,483	1,75,53,067	+16,04,584
Working Expenses.			
Maintenance of way, works and stations ...	12,98,865	14,96,482	+1,97,617
Locomotive expenses	22,86,580	26,74,051	+3,87,471
Carriage and Wagon expenses	5,81,923	5,80,837	—1,086
Traffic expenses	8,93,820	9,81,255	+87,435
General charges	5,75,523	5,55,914	—19,609
Special and Miscellaneous expenditure ...	1,39,071	2,16,990	+77,919
Total ...	57,75,782	65,05,529	+7,29,747
Net Earnings ...	1,01,72,701	1,10,47,538	+8,74,837

The following table compares the coaching traffic during 1894 with that of 1895 :—

	1894.		1895.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First Class ...	114,422	1,38,883	129,993	1,46,278	+15,571	+7,395
Second Class ...	1,062,986	3,71,329	1,134,824	3,91,918	+71,838	+20,589
Intermediate Class.	516,691	7,88,051	5,41,609	8,26,540	+24,918	+38,489
Third Class ...	13,626,831	31,01,745	14,248,038	33,10,858	+6,21,20	+2,09,113
Total ...	15,320,930	44,00,008	16,054,464	46,75,594	+733,534	+2,75,586
Other receipts ...	...	5,87,135	...	6,67,930	...	+80,795
Total ...	...	49,87,143	...	53,43,524	...	+3,56,381

The increase in the number of passengers carried and the earnings therefrom amounted to 733,534 and Rs. 2,75,586 respectively. The improvement is due to development of passenger traffic under all classes.

The total increase was derived from :—

	No.	Rs.
Ordinary passenger traffic...	524,134	2,66,033
Season tickets...	209,400	9,553
	733,534	275,586

The increase under "other receipts" is chiefly due to heavy receipts from parcels carried for the public.

The following table shows the fluctuations in goods traffic, as compared with the traffic for 1894 :—

	1894.		1895.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General Merchandise ...	1,292,477	96,10,914	1,326,241	1,06,61,476	+33,764	+10,50,562
Military Stores ...	715	24,367	1,080	37,413	+365	+13,046
Railway materials for construction	51,586	64,489	77,617	83,452	+26,031	+18,963
Coal for the public ...	46,670	2,63,126	73,510	4,32,136	+26,840	+1,69,010
Coal for construction ...	282	390	1,073	1,912	+791	+1,522
Coal for Revenue ...	54,890	1,28,340	83,565	2,13,977	+28,675	+85,637
Revenue Stores ...	86,170	1,01,999	79,564	92,131	—6,606	—9,868
Total ...	1,532,790	1,01,93,625	1,642,650	1,15,22,497	+122,221	+13,28,872
	No.		No.			
Live Stock	548,452	3,78,805	536,091	3,87,334	—12,361	+8,529
Rents, &c. ...	...	9,469	...	8,740	...	—729
Total ...	...	1,05,81,899	...	1,19,18,571	...	+13,36,672

Fluctuations in the principal commodities carried during 1894 and 1895 are shown in the following statement :—

Description of Goods.	1894.		1895.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Coal and coke for the public and foreign railways	46,670	2,63,127	73,510	4,32,136	26,840	1,69,009
Cotton, raw	97,793	10,64,363	1,30,424	15,46,446	32,631	4,82,083
Cotton, manufactured ...	30,134	6,07,637	31,902	6,30,318	1,768	22,681
Drugs and chemicals ...	2,986	45,255	3,870	56,857	884	11,602
Dyes and tans ...	9,126	1,57,829	10,601	1,76,508	1,475	18,679
Grain and pulse ...	2,23,310	13,00,864	258,010	17,73,833	34,700	4,72,969
Hides and skins ...	3,151	43,972	3,916	53,291	765	9,319
Jute	8,731	90,036	10,468	1,22,019	1,737	31,983
Leather, manufactured ...	901	14,592	1,117	19,536	216	4,944
Liquors	3,777	43,036	3,817	45,083	40	2,047
Metals	31,115	4,04,597	39,451	5,20,265	8,336	1,15,668
Oils	10,254	1,25,830	9,222	1,12,214	—1,032	—13,616
Oil-seeds	237,702	19,67,187	167,289	15,25,967	—70,413	—4,41,220
Opium	833	27,508	1,396	53,197	563	25,689
Paper and pasteboards ...	1,383	21,549	1,496	23,765	113	2,216
Provisions	40,199	3,96,582	51,667	4,90,120	11,468	93,538
Railway plant and rolling stock carried for the public and foreign railways ...	27,007	1,76,077	28,891	1,97,575	1,884	21,498
Salt	152,646	4,48,587	133,301	4,15,553	—19,345	—33,034
Spices	11,563	1,45,808	11,660	1,37,971	97	—7,837
Stone and lime ...	27,347	88,758	29,340	98,551	1,993	9,793
Sugar	50,271	6,03,550	51,618	6,74,667	1,347	71,117
Tea	898	15,001	1,034	16,652	136	1,651
Timber	38,505	2,76,878	46,606	3,27,982	8,101	51,104
Tobacco	17,782	1,29,441	19,710	1,53,596	1,928	24,155
Wool, raw	6,630	1,46,106	6,031	1,35,715	—599	—10,391
Firewood	47,074	1,58,904	50,294	1,81,421	3,220	22,517
Hay and grass ...	31,477	1,30,953	32,743	1,40,733	1,266	9,780
Mowra flowers and seeds...	17,916	1,19,472	22,037	1,38,406	4,121	18,934
All other articles of merchandise	162,681	8,84,909	169,410	9,30,648	6,729	45,739
Total ...	1,339,862	98,98,408	1,400,831	1,11,31,025	60,969	12,32,617

It will be seen from the above that the increase, which is attributable in a great measure to the through opening of the Godhra-Rutlam Railway, is due

chiefly to "general merchandise" and has occurred principally in cotton (raw), grain and pulse, provisions, metals and timber. But there was a slight falling off in "oil seeds" and in "salt".

The carriage of coal for the public and for revenue, also contributed towards the increase.

The decrease under sundry earnings is principally due to hire of locomotives and arrears of interest charges recovered from the Godhra-Rutlam Railway during the previous year.

The fluctuations in working expenses are explained below.

Maintenance of Way, Works and Stations.—Increase Rs. 1,97,617, chiefly due to the heavy expenditure on reconstruction of the Dhadhar Bridge and renewal of warren girder bridges.

Locomotive Expenses.—Increase Rs. 3,87,471, chiefly due to a larger consumption of coal in 1895 owing to increased mileage run and to a rise in the rate of consumption per train mile owing to increased use of country coal. Maintenance and renewals of engines also cost more in 1895.

Traffic Expenses.—Increase Rs. 87,435, chiefly due to the supply of new wagon covers, to engagement of extra station staff to meet heavy traffic, and to increased consumption of oil, stores, stationery and tickets.

Special and miscellaneous Expenses.—Increase Rs. 77,919, chiefly due to the heavy claims settled during the year for damage to goods caused by excessive rain.

RAJPUTANA-MALWA RAILWAY SYSTEM—(*Metre Gauge*), INCLUDING the GODHRA-RUTLAM RAILWAY—(*Broad Gauge*).

The working results of the year's transactions, as compared with those of 1894, are shown in the following table :—

	1894.	1895.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	2,51,44,200	2,45,42,974	—6,01,226
Working expenses	96,10,377	1,00,73,779	4,63,402
Net earnings	1,55,33,823	1,44,69,195	—10,64,628
Percentage of working expenses to earnings.	38·22	41·05	2·83
Interest	70,73,069	72,33,232	1,60,163
Gross divisible surplus	84,50,780	72,42,218	—12,08,562
One-fifth share payable to the Company ...	16,90,156	14,48,444	—2,41,712
	Train Miles.	Train Miles.	Train Miles.
Train mileage	7,157,119	6,543,904	—6,13,215
	Rs.	Rs.	Rs.
Receipts per train mile	3·51	3·75	·24
Expenses do.	1·34	1·54	·20
Net receipts do.	2·17	2·21	·04
	Miles.	Miles.	Miles.
Open miles	1789·518	1,789·272	—·246
	Rs.	Rs.	Rs.
Receipts per open mile	14,051	13,717	—334
Expenses do.	5,370	5,630	260
Net receipts do.	8,681	8,087	—594
Percentage of net earnings on total capital outlay, excluding indirect charges ...	10·55	9·61	—·94

Traffic and Working.

The total open mileage on 31st December 1895 was 1,789·272 (1,673·938 miles metre gauge, and 115·334 miles broad gauge) and the mean mileage worked during the year was the same.

The gross earnings and working expenses for the two years 1894 and 1895 are compared in the following table:—

	1894.	1895.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	70,16,401	76,66,152	6,49,751
Goods	1,77,44,520	1,64,43,782	—13,00,738
Electric Telegraph	64,306	67,576	3,270
Sundries	3,18,973	3,65,464	46,491
Total ...	2,51,44,200	2,45,42,974	—6,01,226
Working Expenses.			
Maintenance of way, works and stations ...	15,84,177	17,49,920	1,65,743
Locomotive expenses	40,34,711	43,33,157	2,98,446
Carriage and wagon expenses... ...	10,05,703	9,99,634	—6,069
Traffic expenses	15,59,305	16,05,135	45,830
General charges	12,56,525	12,26,972	—29,553
Special and miscellaneous expenditure ...	1,69,956	158,961	—10,995
Total ...	96,10,377	1,00,73,779	4,63,402
Net Earnings ...	1,55,33,823	1,44,69,195	—10,64,628

The following statement shows the receipts under coaching derived from the several classes of passengers, and the number carried:—

	1894.		1895.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First Class	18,999	1,40,445	19,255	1,34,586	256	—5,859
Second Class	76,117	2,13,923	78,286	2,20,750	2,169	6,827
Intermediate Class	281,767	3,22,396	291,451	3,33,558	9,684	11,162
Third Class...	10,262,799	56,41,552	11,064,460	60,61,361	801,661	4,19,809
Total ...	10,639,682	63,18,316	11,453,452	67,50,265	813,770	4,31,939
Other Receipts ...	.....	6,98,085	.....	9,15,897	...	2,17,812
Total Coaching ...	.....	70,16,401	.....	76,66,152	...	6,49,751

The improvement in passenger traffic occurred at nearly all stations on the line, and is ascribed partly to ordinary fluctuations and partly to development on the Godhra-Rutlam Railway, which was open throughout the year.

The following table shows the goods traffic during 1895 compared with that of 1894 under the classified heads:—

	1894.		1895.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Merchandise, general	1,826,266	1,69,27,920	1,742,261	1,55,05,206	—84,005	—14,22,714
Military stores	5,146	83,821	5,142	97,992	—4	14,171
Railway material for construction..	110,372	1,79,050	92,815	1,41,534	—17,557	—37,516
Coal for the public	9,272	45,455	10,407	40,135	1,135	—5,320
Do. for construction	4,241	14,621	9,924	24,777	5,683	10,156
Do. for revenue	74,396	2,72,705	109,546	4,11,803	35,150	1,39,098
Revenue stores	58,971	1,21,407	64,061	1,22,748	5,090	1,341
Total Goods ...	2,088,664	1,76,44,979	2,034,156	1,63,44,195	—54,508	—13,00,784
	No.		No.		No.	
Live stock	227,381	77,078	165,845	76,512	—61,536	—566
Rents, &c.	.....	22,463	.....	23,842	...	1,379
Gross total ...	.....	1,77,44,520	.....	1,64,44,549	...	—12,99,971
Less—Outstandings irrecoverable ...	.....	.....	.....	767	...	767
Net total ...	.....	1,77,44,520	.....	1,64,43,782	...	—13,00,738

The quantities of the principal commodities carried during 1894 and 1895 and the earnings therefrom will be found in the following table:—

	1894.		1895.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Coal and Coke carried for the public and foreign railways ...	9,272	45,453	10,407	40,135	1,135	—5,320
Cotton, raw	54,973	8,35,006	85,413	12,95,434	30,440	4,60,428
Cotton, manufactured	38,636	9,39,815	37,449	8,71,259	—1,187	—68,556
Drugs and Chemicals	2,247	42,162	2,428	46,844	181	4,682
Dyes and Tans	11,951	1,88,705	12,568	1,81,486	617	—7,219
Firewood	32,322	53,456	29,864	57,596	—2,458	4,140
Grain and Pulse	638,649	53,60,461	621,904	49,13,211	—16,745	—4,47,250
Hides and Skins	6,718	71,428	7,996	89,327	1,278	17,899
Jute	23,746	2,03,518	22,972	1,80,277	—774	—23,241
Leather, manufactured	1,526	24,406	1,380	27,991	—146	3,585
Liquors	3,617	40,178	3,779	43,219	162	3,041
Metals	28,949	3,63,969	32,323	4,19,932	3,374	55,963
Mowra flowers and seeds ...	5,271	29,371	6,426	36,171	1,155	6 800
Oils	8,497	86,923	9,219	84,178	722	—2,745
Oil seeds	352,981	25,67,520	233,304	14,86,040	—119,677	—10,81,480
Opium	4,592	88,107	3,987	65,6 8	—605	—22,419
Paper and Pasteboard	1,276	23,554	1,309	23,843	33	289
Provisions...	48,063	4,88,301	52,208	4,94,849	4,145	6,548
Railway Plant and Rolling Stock carried for the public and foreign railways	17,368	71,1[illegible]0	20,627	1,11,047	3,259	39,867
Salt	213,164	21,53,571	226,198	21,13,703	13,034	—39,868
Saltpetre, &c.	11,310	65,313	14,106	83,669	2,796	18,356
Spices	15,837	2,04,881	17,552	2,05,223	1,715	342
Stone and Lime	19,412	87,699	22,657	88,221	3,245	522
Sugar	151,539	16,21,405	131,166	12,76,341	—20,373	—3,45,064
Tea...	931	30,044	1,039	30,203	108	159
Timber	22,864	1,10,405	26,175	1,11,006	3,311	598
Tobacco	14,167	2,15,717	15,281	1,94,935	1,114	—20,782
Wool, raw...	7,457	1,44,774	6,899	1,31,390	—558	—13,384
Wool, manufactured	938	27,973	831	21,702	—107	—6 271
All other articles of merchandise.	92,411	8,71,896	100,343	9,18,413	7,932	46,517
Total ...	1,840,684	1,70,57,196	1,757,810	1,56,43,333	—82,874	—14,13,863

Under "General Merchandise" there were noticeable increases in cotton (raw), 30,440 tons Rs. 4,60,428, due to the large and early crop of 1895-96 and metals, 3,374 tons Rs. 55,963; the principal decreases were in cotton, manufactured, 1,187 tons Rs. 68,556, grain and pulse, 16,745 tons Rs. 4,47,250, oil seeds, 119,677 tons Rs. 10,81,480, due to failure of crops, sugar, 20,373 tons Rs. 3,45,064. In salt there was an increase of 13,034 tons but a decrease of Rs. 39,865, due to revival of the Sambhar trade, which gives a shorter lead than Kharagora and Pachbadra salt.

The increases in working expenses of Rs. 1,65,743 under "Maintenance of Way, Works and Stations," Rs. 2,98,446 under "Locomotive Expenses" and Rs. 45,830 under "Traffic Expenses" are chiefly due to the Godhra-Rutlam Railway having been open throughout the year.

The Gaekwar's Railways—(*Metre Gauge*),

The chief features of the year's transactions are compared with those for 1894 in the following table:—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1894.	1895.	Difference.	1894.	1895.	Difference.	1894.	1895.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	2,40,316	2,34,473	—5,843	69,668	73,849	4,223	3,79,972	3,38,445	—41,527
Working expenses ...	1,44,887	1,37,709	—7,178	25,632	27,307	1,675	1,43,585	1,36,005	—7,580
Net earnings	95,429	96,764	1,335	44,036	46,584	2,548	2,36,387	2,02,440	—33,947
Percentage of working expenses to earnings ...	60·29	58·74	—1·55	36·79	36·96	·17	37·79	40·19	2·40
	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. miles	T. miles.	T. miles.
Train miles...	82,322	76,944	—5,378	19,557	19,544	—13	118,972	109,482	—9,490
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile ...	2·92	3·05	·13	3·56	3·78	·22	3·19	3·09	—·10
Expenses do. ...	1·76	1·79	·03	1·31	1·40	·09	1·21	1·24	·03
Net receipts do. ...	1·16	1·26	·10	2·25	2·38	·13	1·98	1·85	—·13
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Open miles...	71·66	71·66	...	13·35	13·35	...	92·63	92·63	...
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per open mile ...	3,337	3,272	—65	5,359	5,535	176	4,102	3,654	—448
Expenses do. ...	2,012	1,922	—90	1,972	2,046	74	1,550	1,468	—82
Net receipts do. ...	1,325	1,350	25	3,387	3,489	120	2,552	2,186	—366
Percentage of net earnings on total capital expended including suspense	5·05	5·07	·02	6·09	6·44	·35	7·64	6·22	—1·42

The gross earnings and working expenses for the two years 1894 and 1895 are compared in the following table :—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1894.	1895.	Difference.	1894.	1895.	Difference.	1894.	1895.	Difference.
Earnings.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	1,43,727	1,37,668	—6,059	49,577	50,427	850	1,62,456	1,73,291	10,835
Goods	94,110	94,064	—46	19,034	21,586	2,552	2,14,766	1,58,428	—56,338
Electric Telegraph ...	1,367	1,487	120	625	357	—268	2,658	4,118	1,460
Sundries	1,112	1,254	142	432	1,521	1,089	92	2,608	2,516
Total ...	2,40,316	2,34,473	—5,843	69,668	73,891	4,223	3,79,972	3,38,445	—41,527
Working Expenses.									
Maintenance of way, works and stations ...	49,963	40,649	—9,314	5,796	5,815	19	23,739	23,519	—220
Locomotive expenses ...	43,978	41,979	—1,998	10,118	11,421	1,303	60,568	57,666	—2,902
Carriage and Wagon expenses	13,889	20,963	7,074	2,594	2,517	—77	14,890	13,800	—1,090
Traffic expenses	24,205	21,639	—2,566	3,951	4,228	277	23,250	21,913	—1,337
General charges	12,844	12,479	—365	2,557	2,394	—163	18,702	16,848	—1,854
Special and Miscellaneous expenditure	8	...	—8	616	931	315	2,436	2,259	—177
Total ...	1,44,887	1,37,709	—7,178	25,632	27,307	1,675	1,43,585	1,36,005	—7,580
Net earnings ...	95,429	96,764	1,335	44,036	46,584	2,548	2,36,387	2,02,440	—33,947

Earnings.

The following table compares the coaching traffic during 1894 with that of 1895 :—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	Passengers.		Other receipts.	Passengers.		Other receipts.	Passengers.		Other receipts.
	No.	Rs.	Rs.	No.	Rs.	Rs.	No.	Rs.	Rs.
1894	456,807	1,38,607	5,120	271,256	47,740	1,837	622,668	1,53,174	9,282
1895	428,593	1,32,252	5,416	279,558	48,315	2,112	670,890	1,64,186	9,105
Difference... ...	—28,214	—6,355	+296	+8,302	+575	+275	+48,222	+11,012	—177

The increase on the Petlad and Mehsana Railways in the number of passengers carried and the earnings therefrom is chiefly in the third class; the decrease on the Dabhoi Railway is in the lower class.

The following table shows the tonnage lifted and the receipts from goods traffic during 1894, compared with those of 1895 under the classified heads :—

	1894.		1895.		Difference.	
Dabhoi Railway.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Merchandise, general	43,081	90,534	42,428	92,028	—653	1,494
Railway material for construction ...	65	39	333	140	268	101
Coal for the public	250	280	188	321	—62	41
Do. for revenue	426	248	309	179	—117	—69
Revenue stores	5,215	2,480	2,268	1,100	—2,947	—1,380
Total, goods ...	49,037	93,581	44,713	93,768	—3,511	187
	No.		No.		No.	
Live-stock	2,417	191	813	59	—1,604	—132
Rents, &c.	...	338	...	237	.....	—101
Total ...	...	94,110	...	94,064	.....	—46

	1894.		1895.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Petlad Railway.	20,098	18,252	22,063	20,836	1,965	2,584
Merchandise general ...	3	2	5	4	2	2
Coal for the public... ...	490	139	597	162	107	25
Do. for revenue	58	14	46	13	−12	−1
Revenue stores						
Total, goods ...	20,649	18,407	22,711	21,015	2,062	2,608
	No.		No.		No.	
Live stock	1,877	331	1,167	302	−710	−29
Rents, &c.	...	96	...	269	...	−27
Total ...	...	19,034	...	21,585	...	2,552
Mehsana Railway.						
Merchandise, general ...	158,164	2,12,158	116,092	1,53,605	−42,072	−58,553
Military stores	1	5	4	16	3	11
Railway material for construction	4,005	1,037	7,176	3,464	3,171	2,427
Coal for the public... ...	24	43	8	15	−16	−28
Revenue stores	423	210	912	241	489	31
Total, goods ...	162,617	2,13,453	124,192	1,57,341	−38,425	−56,112
	No.		No.		No.	
Live stock	4,748	531	1,547	345	−3,201	−186
Rents, &c.	...	782	...	742	...	−40
Total ...	...	2,14,765	...	1,58,428	...	−56,338
Dabhoi Railway.						
Cotton, raw	3,080	7,105	2,685	6,601	−395	−504
Cotton, manufactured ...	453	1,466	468	1,473	15	7
Oil-seeds	3,377	8,844	1,980	4,253	−1,757	−4,591
Mowra flowers and seeds ...	7,874	14,182	8,354	14,224	480	42
Metals	715	1,840	697	1,526	−18	−314
Grain and pulse	6,362	15,016	8,571	21,150	2,209	6,134
Firewood	3,522	5,989	4,165	7,526	643	1,537
Provisions	1,343	3,541	1,347	3,650	4	109
Salt	2,174	3,190	2,226	3,752	52	562
Stone and lime	4,019	5,425	1,842	2,460	−2,177	−2,965
Sugar	1,292	2,126	1,129	1,919	−163	−207
Timber	2,228	5,025	2,272	5,225	44	200
All other articles of merchandise	6,532	17,065	6,880	18,590	348	1,525
Total...	43,331	90,814	42,616	92,349	−715	1,535
Petlád Railway.						
Cotton, raw...	800	908	639	773	−161	−135
Cotton, manufactured ...	599	799	634	874	35	75
Grain and pulse	1,769	1,122	1,600	1,043	−169	−79
Oil-seeds	794	520	368	229	−426	−291
Salt	937	818	882	809	−55	−9
Stone and lime	1,185	886	2,348	1,731	1,163	845
Sugar	891	705	682	588	−209	−117
Timber	2,014	1,668	2,157	1,719	143	51
Tobacco	6,687	6,202	7,477	8,080	790	1,878
All other articles of merchandise	4,425	4,625	5,281	4,994	856	369
Total ...	20,101	18,253	22,068	20,840	1,967	2,587

Description.	1894.		1895.		Difference.	
Mehsana Railway.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Cotton, raw...	1,037	3,578	791	2,758	—246	—820
Cotton, manufactured ...	1,542	3,717	1,475	3,458	—67	—259
Firewood	927	1,322	1,443	2,250	516	928
Grain and pulse	38,350	55,909	19,540	30,218	—18,810	—25,691
Jute	956	1,573	903	1,412	—53	—161
Metals	1,106	1,502	1,046	1,627	—60	125
Mowra flowers and seeds ...	149	171	1,279	1,479	1,130	1,308
Oils	851	2,222	1,087	2,671	236	449
Oil-seeds	45,307	41,646	43,129	35,946	—2,178	—5,700
Provisions	2,155	3,535	2,832	5,197	677	1,662
Salt	43,273	63,827	21,867	34,812	—21,406	—29,015
Stone and lime	1,685	3,202	2,057	3,893	372	691
Sugar	9,615	14,756	5,839	8,117	—3,776	—6,639
Timber	3,907	4,874	3,959	5,448	52	574
All other articles of merchandise...	7,329	10,372	8,857	14,349	1,528	3,977
Total ...	158,189	2,12,206	116,104	1,53,635	—42,085	—58,571

Dabhoi Railway.—The principal increase was in Mowra flowers 2,209 tons Rs. 6,134; there were large decreases in firewood 1,757 tons Rs. 4,591 and stone and lime 2,177 tons Rs. 2,965.

Petlád Railway.—The fluctuations were unimportant, the principal one being an increase of 790 tons Rs. 1,878 in tobacco.

Mehsana Railway.—The total public traffic fell by 42,085 tons Rs. 58,571 or by about 25 per cent.; the principal decreases were in grain and pulse 18,810 tons, Rs. 25,691, oil-seeds 2,178 tons Rs. 5,700, salt 21,406 tons Rs. 29,015, and sugar 3,776 tons Rs. 6,639. The decrease in salt is due to the traffic from Kharaghoda to Central India being now sent *vid* Godhra and Rutlam, and that in sugar is ascribed to short crops and to the season having been unpropitious for Hindu marriages.

Working Expenses.

On the Dabhoi Railway there was a decrease of Rs. 9,314 in maintenance of way, works and stations, due to smaller expenditure on renewals of permanent way and repairs of flood damages; a decrease of Rs. 1,999 in "locomotive expenses" was due to smaller expenditure on maintenance of engines, an increase of Rs. 7,074 in "carriage and wagon expenses" to the renewal of 12 goods vehicles during the year; and a decrease of Rs. 2,566 in "traffic expenses" to smaller expenditure on station and train staff and on wagon covers.

On the Petlad and Mehsana Railways, working expenses under the different abstracts are calculated at the same percentage on gross earnings as prevails on the Bombay Baroda and Central India and Rajputana-Malwa Railways respectively in each half-year.

PALANPUR-DEESA RAILWAY—(*Metre Gauge*).

The working results of the year's transactions, as compared with those of 1894, are shown in the following table :—

	1894.	1895.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	37,544	38,182	638
Working expenses	14,399	15,337	938
Net earnings	23,145	22,845	—300
Percentage of working expenses to earnings ...	38·35	40·17	1·82

	1894.	1895.	Difference.
	T. miles.	T. miles.	T. miles.
Train mileage	15,295	12,574	—2,721
	Rs.	Rs.	Rs.
Receipts per train mile	2 45	3·04	·59
Expenses do.	0·94	1·22	·28
Net receipts do.	1·51	1·82	·31
	Miles.	Miles.	Miles.
Open miles	17·28	17·28	...
	Rs.	Rs.	Rs.
Receipts per open mile	2,172	2,210	38
Expenses	833	888	55
Net receipts	1,339	1,322	—17
Percentage of net earnings on total capital outlay ...	5·79	5·71	—·08

Traffic and Working.

The mileage open throughout the year and on 31st December 1895 was 17·28, the same as in 1894.

The gross earnings and working expenses for the years 1894 and 1895 are compared in the following table :—

	1894.	1895.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	19,838	21,907	2,069
Goods	17,538	16,134	—1,404
Electric Telegraph	157	115	—42
Sundries	11	26	15
Total ...	37,544	38,182	638
Working Expenses.			
Maintenance of way, works and stations... ...	2,371	2,652	281
Locomotive expenses	6,040	6,505	465
Carriage and wagon expenses	1,511	1,555	44
Traffic expenses	2,339	2,471	132
General charges	1,887	1,899	12
Special and miscellaneous expenditure ...	251	255	4
Total ...	14,399	15,337	938
Net Earnings ...	23,145	22,845	—300

The following statement shows the coaching earnings derived from the several classes of passengers and the number carried :—

	1894.		1895.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First Class	878	784	600	610	—278	—174
Second Class	2,958	1,115	1,535	679	—1,423	—436
Third Class	93,626	15,891	107,889	18,216	14,263	2,325
Total ...	97,462	17,790	110,024	19,505	12,562	1,715
Other receipts ...	...	2,048	...	2,402	...	354
Total Coaching ...	...	19,838	...	21,907	...	2,069

The improvement is entirely in third class traffic, both first and second class having fallen off.

The following table shows the goods traffic of 1895 compared with that of 1894 under the heads of classification:—

	1894.		1895.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
Merchandise, general	16,863	15,437	17,608	15,447	745	10
Military stores	214	413	112	209	—102	—204
Railway material for construction .	4,759	1,356	551	129	—4,208	—1,227
Coal for the public...	...	...	...	...	...	...
Do. for construction	...	..	...	...	...	...
Do. for revenue	12	3	18	5	6	2
Revenue stores	188	41	88	25	—100	—16
Total, Goods ...	22,036	17,250	18,377	15,815	—3,659	—1,435
	No.		No.		No.	
Live-stock	605	82	768	121	163	39
Rents, &c.	...	206	...	198	...	—8
Total ...	...	17,538	...	16,134	...	1,404

The quantities of the principal commodities carried during 1894 and 1895, and the earnings therefrom will be found in the following table :—

	1894.		1895.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Grain and pulse	2,882	2,163	6,263	4,565	3,381	2,402
Oil-seeds	6,523	3,788	3,917	2,261	—2,606	—1,527
Provisions	773	798	1,044	1,074	271	276
Sugar	2,767	2,561	2,229	2,268	—538	—293
All other articles of merchandise ...	4,132	6,540	4,267	5,488	135	—1,052
Total ...	17,077	15,850	17,720	15,656	643	—194

Under general merchandise the chief fluctuations were an increase of 3,381 tons Rs. 2,402 in grain and pulse, and a decrease of 2,606 tons Rs. 1,527 in oil-seeds. There was also a decrease of 4,208 tons Rs. 1,227 in railway material for construction, due to the completion of the line.

The working expenses on this line are charged in each half-year at the same percentage on gross earnings as prevails on the Rajputana-Malwa system.

Oodepore-Chitor Railway—(*Metre Gauge*).

The line was opened for traffic on the 1st August 1895.

The following are the results of the 5 months' working :—

Gross earnings	Rs.	54,702
Working expenses	„	35,924
Net earnings	„	18,778
Percentage of working expenses to earnings	„	65·67
Train mileage	T. Miles.	20,880
Receipts per train mile	Rs.	2·62
Expenses do.	„	1·72
Net receipts do.	„	·90
Open mileage (mean)	Miles.	25·282
Receipts per open mile	Rs.	2,164
Expenses do.	„	1,421
Net receipts do.	„	743
Percentage of net earnings on total Capital outlay	„	*

* Capital outlay not known.

Traffic and Working.

The total mileage open at the end of 1895 was 60·313 ; the mean mileage worked during the year was 25·282, the line having been opened on the 1st August 1895.

The following table shows the gross earnings and working expenses :—

Earnings.	Rs.	Working Expenses.	Rs.
Coaching	42,520	Maintenance of way, works and stations.	12,515
Goods	11,885	Locomotive expenses	9,794
Electric telegraph	297	Carriage and wagon expenses ...	2,842
—Total ...	54,702	Traffic expenses	4,226
Working expenses	35,924	General charges	3,399
		Special and miscellaneous ...	3,148
Net Earnings ...	18,778	Total ...	35,924

The coaching earnings from the several classes of passengers are shown below :—

	No.	Rs.
First Class	145	629
Second Class	675	1,691
Third Class	81,347	37,189
Total ...	82,167	39,509
Other receipts	...	3,011
Total, Coaching ...	...	42,520

The following table details the goods traffic under the heads of classification :—

	Tons.	Rs.
Merchandise, general	3,589	10,229
Railway materials for construction .	1,729	1,180
Coal for revenue	3	2
Revenue stores	16	8
Total, Goods ...	5,337	11,419
Rents, &c.	...	466
Total		11,885

The principal commodities carried were: cotton manufactured, 311 tons Rs. 1,446; grain and pulse, 724 tons Rs. 1,221; provisions, 315 tons Rs. 912; salt, 498 tons Rs. 1,066, and sugar, 398 tons Rs. 1,052.

The working expenses of the line, except maintenance, which is charged on actual expenditure with a percentage for supervision, are charged at the percentage on gross earnings prevailing on the Rajputana-Malwa system, an additional charge of 5 per cent. on gross earnings being made for hire of rolling stock.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre Gauge*).

The result of the year's transactions, as compared with that for 1894, is shown in the subjoined table:—

	1894.	1895.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	79,87,447	88,38,028	+8,50,581
Working expenses (including contribution to Provident Fund)	52,49,852	52,97,126	+47,274
Net earnings	27,37,595	35,40,902	+8,03,307
Percentage of expenses on gross earnings...	65·73	59·94	−5·79
	Train miles.	Train miles.	Train miles.
Train mileage	3,235,033	3,347,992	+112,959
	Rs.	Rs.	Rs.
Receipts per train mile	2·47	2·64	+0·17
Expenses do.	1·62	1·58	−0·04
Net receipts do.	0·85	1·06	+0·21
	Miles.	Miles.	Miles.
Open mileage	1,556·24	1,556·20	−0·04
	Rs.	Rs.	Rs.
Receipts per open mile	5,132	5,679	+547
Expenses do.	3,373	3,404	+31
Net receipts do.	1,759	2,275	+516
Percentage of net earnings on total Capital outlay including suspense	2·26	2·91	+0·65

The mean mileage worked during the year 1895 was 1,556·20 miles against 1,556·24 in the previous year. The decrease of ·04 mile is due to a correction in the length of the East Coast Railway worked over from 3·03 to 2·99 miles.

The following table gives the details of earnings and working expenses for 1895 compared with 1894:—

	1894.	1895.	Difference.
	Rs.	Rs.	Rs.
Earnings.			
Coaching	32,91,550	36,89,471	+3,47,921
Goods	45,50,018	49,99,717	+4,49,699
Electric Telegraph	25,835,	26,717	+882
Sundries	1,20,044	1,72,123	+52,079
Total ...	79,87,447	88,38,028	+8,50,581

Working Expenses.	1894. Rs.	1895. Rs.	Difference. Rs.
Maintenance of Way, Works and Stations..	13,82,501	13,07,854	—74,647
Locomotive expenses	17,71,220	17,95,624	+24,404
Carriage and wagon expenses... ...	3,79,308	4,23,230	+43,922
Traffic expenses	8,34,314	8,63,555	+29,241
General charges	8,12,166	8,13,063	+897
Special and miscellaneous expenditure ...	43,981	59,868	+15,887
Total ...	52,23,490	52,63,194	+39,704
Contribution to Provident Fund ...	26,362	33,932	+7,570
Total Working Expenses ...	52,49,852	52,97,126	+47,274
Net Earnings ...	27,37,595	35,40,902	+8,03,307

The number of passengers of various classes carried, including Troops and Police and Season tickets, and the earnings therefrom, compare as follows :—

	1894.		1895.		Difference.	
	No.	Earnings. Rs.	No.	Earnings. Rs.	No.	Earnings. Rs.
Fist Class	16,878	99,419	18,667	1,16,482	+1,789	+17,063
Second Class ...	59,491	1,35,283	60,761	1,56,742	+1,270	+21,459
Third Class ...	6,579,844	27,25,868	7,256,002	29,62,783	+676,158	+2,36,915
Total ..	6,656,213	29,60,570	7,335,430	32,36,007	+679,217	+2,75,437

The improvement under all classes of passenger traffic may be ascribed partly to the diversion of traffic caused by the breaches on the South-East section of the Great Indian Peninsula Railway during the latter end of the year, and partly to general development.

The average sum received for carrying a passenger one mile amounted to 2·12 pies, the same as in the previous year.

The coaching earnings per passenger train-mile were Rs. 2·88 against Rs. 2·46.

Goods.—The following is a summary of the tonnage of goods lifted and the earnings therefrom as compared with the previous year :—

	Previous year.		1895.		Increase or Decrease.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General Merchandise	703,063	40,29,315	747,074	44,39,347	+44,011	+4,10,032
Military Stores	1,103	13,034	1,234	18,532	+131	+5,498
Railway materials for Construction (Home line only) ...	30,034	27,790	17,536	21,441	—12,498	—6,349
Coal and Coke for the public and Foreign Railways ...	15,524	90,333	33,935	1,78,327	+18,411	+87,994
Do. for Construction (Home line only) ...	.....	.....	.....	.....	.....	.....
Do. for Revenue only	58,149	1,75,461	37,798	1,91,012	—20,351	+18,551
Revenue Stores other than Coal and Coke	117,735	1,88,987	95,769	1,18,156	—21,966	—70,831
Live Stock	No. 223	6,050	No. 339	9,283	No. +116	+3,233
Rents, Miscellaneous, &c. ...	.....	19,048	.....	20,619	.....	+1,571
Total ...	925,831	45,50,018	933,685	49,99,717	+7,854	+4,49,699

The increase under Goods traffic is partly due to the diversion of traffic consequent on the breaches over the G. I. P. Railway during September and October 1895, and partly to general development of business.

The noticeable fluctuations of traffic under General Merchandise are noted below :—

		Tons.		Rs.
Coal	Increase	18,411	Increase	87,993
Cotton, manufactured ...	,,	944	,,	23,480
Grain and Pulse	,,	28,297	,,	3,14,693
Hides and Skins	,,	1,852	,,	22,772
Metals	,,	2,915	,,	54,445
Oil-seeds	Decrease	22,446	Decrease	93,946
Provisions	Increase	8,556	Increase	68,615
Salt	,,	5,021	,,	51,055
Spices	Decrease	1,807	Decrease	35,020
Sugar	Increase	7,328	Increase	22,538

The above variations were principally due to the following causes :—

Coal and Sugar.—The increases under these heads are due to the heavy bookings of coal from Bezwada to Dharmavaram for the South Indian Railway, and of sugar, unrefined, from *viâ* Bezváda to Goribidnur for Messrs. Arbuthnot and Co.

Cotton, manufactured.—The increase is due to heavy bookings from Dhupdal to *viâ* Bezváda.

Grain and Pulse.—The increase is due to heavy bookings from and *viâ* Bezváda to stations on the Mysore line, also in bookings *viâ* Portuguese Frontier and Hotgi.

Hides and Skins.—The increase is due to heavy bookings from *viâ* Poona to *viâ* Guntakal.

Metals.—The increase is due to the carriage of pipes from Bombay *viâ* Portuguese Frontier to Bangalore for the Hassuraghat Water Works in the Mysore Province.

Oil-seeds.—The decrease is due to a falling off in bookings *viâ* Portuguese Frontier, *viâ* Hotgi, *viâ* Poona and from Kolhápur.

Provisions.—The increase is due to improved bookings from *viâ* Poona, Hotgi and Portuguese Frontier and from Bellary and Bangalore.

Salt.—The increase is due to heavy bookings from *viâ* Poona and Portuguese Frontier.

Spices.—The decrease is due to a falling off in bookings *viâ* Poona and Hotgi.

The average sum received for carrying a ton of goods one mile amounted to 6·95 pies against 7·36 pies in the previous year.

The goods earnings per train mile amounted to 2·40 rupees, the same as in the previous year.

The fluctuations in working expenses are explained below :—

Maintenance of Way, &c.—The cost of maintenance shows a decrease of Rs. 74,647 or 5·40 per cent., and is attributable chiefly to the special renewals of sleepers having been less extensive than those in the corresponding period; to writesback from Capital of the Revenue share of rebuilding certain waterways in 1894, and to the outlay on repairs to buildings and staff quarters generally in the Hubli, Kistna, Mysore and Bellary Districts, having been less than the sum spent on this account in the earlier period. Fewer trains were also run for the carriage of ballast and materials while the renewal of tools was considerably less.

Locomotive Expenses.—The increase of Rs. 24,404, equivalent to 1·38 per cent., over the previous year's expenditure, is mainly due to the appointment of an additional District Locomotive Superintendent, the payment of exchange compensation allowance with arrears to the Chief Draftsman and four Foremen, to

the employment of four Drivers from England, to larger consumption of fuel owing to an increase in the train miles run and greater loads on trains, and to a credit of Rs. 15,000 afforded in the accounts for half year ended June 1894 for overcharges on rough castings previously debited. The increase would have been larger but for a saving in the maintenance and renewals of engines caused by the extension of the piece-work and petty contract systems in the Workshops, the adjustment in the second half of 1894 of approximate charges for haulage of trains over the Braganza Ghâts pertaining to the previous year, and an appreciable reduction in the cost of carriage of materials; a very large quantity of fuel having been supplied to the issuing stations in the 2nd half of 1894 to suit traffic working.

Carriage and Wagon Expenses.—There was an increase of Rs. 43,922 or 11·58 per cent. due almost entirely to the fitting of Jones' buffers to a larger number of goods vehicles, to the completion of repairs to vehicles damaged in accidents, to a large number of wagons having undergone heavy repairs, especially of head stocks and channel irons, and to an adjustment of Rs. 3,068 for depreciation charges on wheels returned to Stores. There was a small increase under General Superintendence which is explained under Abstract B., while that under "Renewals and Repairs to Machinery" was caused by the repairs executed to a 35 H. P. Engine working the Saw Mill.

Traffic Expenses.—The net increase of Rs. 29,241, or 3·50 per cent., is accounted for by the appointment of an extra Traffic Probationer from May 1895, entertainment of additional Station staff on account of extra night trains and increased traffic, to additional mileage run, the substitution of mileage allowances for bháta and overtime to Guards and Brakesmen, and to heavier consumption of oil due to night train services. There was moreover an increase in the issue rates for cocoanut and kerosine oil.

The following Out-agencies were opened during the year :—

Chick Magalur and Phultan.

General Charges.—The expenditure during the two periods was practically the same.

Special and Miscellaneous Expenditure.—The net increase of Rs. 15,887 was made up of a charge of Rs. 28,286 for payments to other lines due principally to a provisional adjustment made of approximate charges for "toll on Kistna bridge traffic" for the four half-years ending 31st December 1895, and to no expenditure having been incurred in England during the year on commission on debentures as in the case of the second-half of 1894.

Bhavnagar-Gondal-Junagad-Porbandar Railway—(*Metre Gauge*).

(Includes the Jetalsar-Rajkot Railway.)

The revenue expenditure for the year 1895 on an open mileage at close of the year of 379·69 miles was 57·92 per cent. of the gross earnings, yielding a net revenue of Rs. 8,98,666.

The gross traffic earnings for the year amounted to Rs. 21,35,558, and the expenditure to Rs. 12,36,892, leaving net earnings of Rs. 8,98,666, this sum being Rs. 46,178 more than the net earnings in 1894.

The gross earnings are made up as under :—

	Rs.
Coaching	... 11,00,956
Goods	... 9,82,738
Telegraph	... 16,625
Sundries	... 35,239

The coaching earnings show an increase of Rs. 35,526, the goods revenue an increase of Rs. 93,866. Telegraph shows an increase of Rs. 20 and sundries an increase of Rs. 10,303.

The revenue expenditure amounted to Rs. 12,36,892, or 57·92 per cent. of the gross earnings against 57·29 per cent. in 1894.

The percentage on total earnings of the several heads of revenue expenditure, as compared with 1894, are given in the following table:—

	1894.	1895.
Maintenance	20·23	19·58
Locomotive Expenses	14·46	14·51
Carriage and Wagon Expenses	2·90	2·67
Traffic Expenses	10·26	9·86
General Charges	9·80	9·49
Miscellaneous Charges	0·36	1·81
	57·29	57·92

The net revenue (exclusive of Jetalsar-Rajkot Railway) Rs. 8,21,219 gives a percentage of dividend of 4·67 per cent. on the total capital outlay to end of 1895, Rs. 1,76,00,031. The shares of the different States in the net revenue and the percentages on their capital outlay are as follows:—

	Net Revenue. Rs.	Percentages.
Bhavnagar share...	5,50,577	7·75
Junagad share	4,573	·12
Gondal-Porbandar share	2,67,121	4·02

The capital outlay to end of year, net earnings and percentage of net earnings of the year on the Jetalsar-Rajkot Railway are Rs. 15,93,585, Rs. 77,447, and Rs. 5·15, respectively.

Departmental Expenditure.

Maintenance.—The expenditure under this head in 1895 was Rs. 4,18,193 against Rs. 4,03,813, showing an increase of Rs. 14,380.

Locomotive.—The Locomotive expenses amounted to Rs. 3,09,956 against Rs. 2,88,653 in 1894, showing an increase of Rs. 21,303, and giving an average cost per train-mile of annas 8·25 against 8·01, and per 1,000 gross ton-miles of Rs. 3·20 against Rs. 3·16.

The consumption of coal during the year amounted to tons 6,360·96 against tons 5,461·39 in 1894. The average cost per ton comes to Rs. 21·81 against Rs. 22·13. The consumption and cost per train-mile were 23·70 lbs. against 21·23 lbs. and annas 3·69 against annas 3·36.

The coal premium for the year was Rs. 2,790-12-2 against Rs. 5,391-8-9 in 1894, and the amount accounted for during the year was Rs. 3,011-15-2 against Rs. 5,977-0-4 in the previous year.

Carriage and Wagon Expenses.—The carriage and wagon expenses, including Jetalsar-Rajkot Railway, amounted to Rs. 56,941 against Rs. 57,923 in 1894. The vehicle-miles run by home vehicles were 12,780,966 against 12,419,270 in the previous year and the average cost per 1,000 vehicle-miles run worked out to Rs. 4·46 against Rs. 4·66.

Traffic Expenses.—The total expenses amounted to Rs. 2,10,476 against Rs. 2,04,778 in 1894. The cost per train-mile and percentage on gross receipts are annas 5·60 and Rs. 9·85, respectively, against annas 4·96 and Rs. 8·92 last year.

General Charges and Special and Miscellaneous Expenditure.—The percentage of the above on the gross earnings of the year compares as follows with the figures for 1894:—

	1894.	1895.
General Charges	9·80	9·49
Special and Miscellaneous Expenditure ...	—·36	1·81

The expenditure reviewed in the foregoing paragraphs is summarized and compared with similar figures in 1894 in the following table:—

	1894.			1895.		
	Expenditure.	Percentage on Gross Receipts.	Cost per Train-mile.	Expenditure.	Percentage on Gross Earnings.	Cost per Train-mile.
	Rs.	Rs.	Annas.	Rs.	Rs.	Annas.
Maintenance...	4,03,813	20·23	11·20	4,18,193	19·58	11·13
Locomotive Expenses ...	2,88,653	14·46	8·00	3,09,956	14·51	8·25
Carriage and Wagon Expenses.	57,923	2·90	1·60	56,941	2·67	1·41
Traffic Expenses	2,04,778	10·26	5·60	2,10,475	9·86	5·60
General Charges	1,95,478	9·80	5·44	2,02,562	9·49	5·39
Steam-boat Service... ...	...	...	...	...	...	...
Special and Miscellaneous ...	—7,289	—0·36	—0·16	38,765	1·81	1·03
Total. ...	11,43,356	57·29	31·68	12,36,892	57·92	32·81

Traffic Working.—Coaching.

The gross earnings amounted to Rs. 11,00,956 against Rs. 10,65,430 in 1894, an increase of Rs. 35,526 or 3·33 per cent.

The unit mileage of passenger traffic compares as follows with previous years :—

Class.	Unit Mileage.						
	1889.	1890.	1891.	1892.	1893.	1894.	1895.
1st Class	202,584	229,195	195,276	210,216	319,793	335,462	316,950
2nd Class	959,916	1,141,577	1,259,941	1,224,940	1,549,810	1,875,956	2,002,026
3rd Class	43,670,952	51,263,770	50,659,189	49,935,749	62,616,636	64,989,626	67,224,161
Total of all Classes.	44,833,452	52,634,542	52,114,406	51,370,905	64,486,239	67,201,044	69,543,137

The total number of passengers carried was 1,964,550 against 1,886,656 in 1894, an increase of 77,894 or 4·13 per cent.

There was an increase in number and decrease in receipts of first class passengers, due to shorter distances travelled. There was an increase in number and receipts of second and third class passengers.

The number of season tickets sold was 37 only, realizing Rs. 441 against 55 and receipts Rs. 584 in the previous year.

The average distance over which a passenger was carried was 35·40 miles against 35·62 in 1894. The number of trains run in 1895 compares as follows with those run in 1894.

	1894.	1895.
Mails	965	847
Mixed...	3,790	4,107
Passenger, Special	44	25

The decrease of 118 mail trains was due to mail trains being run on the Jetalsar-Rajkot Railway for 12 days, and between Dhola Junction and Junagad for one month only, while in 1894 the trains were run on the Jetalsar-Rajkot Railway and between Dhola Junction and Junagad for a month and a half. The increase of 317 mixed trains was due to the local mixed trains between Bhavnagar and Junagad being numbered and counted during January 1895 as three trains.

The decrease of 19 Passenger Special Trains—in 1894 special trains were run for His Excellency the Governor of Bombay and His Highness the Maharajah of Indore visiting Kathiawar and for His Highness the late Maharajah of Bhavnagar going on tour and pilgrimage.

The following is a comparison of certain figures connected with coaching working :—

	1889.	1890.	1891.	1892.	1893.	1894.	1895.
Average earnings per train mile Rs.	2·59	2·65	3·02	2·99	3·51	3·37	3·53
Average number of units in a train—							
1st Class ... ... Nos.	0·75	0·73	0·72	0·77	1·10	1·06	1·02
2nd Class ... ... „	3·54	3·65	4·67	4·51	5·35	5·94	6·42
3rd Class ... ... „	161·08	163·75	187·53	183·75	215·97	205·62	215·60
Total Passenger Units... ... „	165·37	168·13	192·92	189·03	222·42	212·62	223·04
Other Coaching Traffic... ...Tons.	·70	·77	·67	·78	·89	·85	·84
Average number of Vehicles in a Coaching Train —							
1st Class ... ... Nos.	1·23	1·33	1·35	1·40	1·44	1·40	1·34
2nd Class ... ... „	1·43	1·42	1·61	1·61	1·54	1·57	1·62
3rd Class ... ... „	10·42	11·39	11·98	11·12	11·46	11·44	11·33
Others... ... ... „	0·40	0·49	0·61	0·66	0·77	0·76	0·72
Brakes ... ... „	2·51	2·65	2·79	2·81	2·59	2·63	2·63
Total ... ... „	15·99	17·28	18·34	17·60	17·80	17·80	17·64
Average cost of hauling a Coaching Train ... ... Rs.	1·36	1·46	1·88	1·99	1·76	1·75	1·83
Passenger train Mileage per mean mile open ... ... Nos.	989	939	809	814	869	841	831
Gross Passenger Earnings per mean mile open ... ... Rs.	2,560	2,487	2,442	2,432	3,055	2,836	2,934

Goods Traffic.

The receipts amounted to Rs. 9,82,738 on tons 244,154 (excluding Railway materials) against Rs. 8,88,872 on tons 230,466 in the previous year, showing an increase of Rs. 93,866 or 10·56 per cent., and in weight 13,688 tons or 5·94 per cent.

The increases occur in the following staples :—

Cotton, Raw.—Rs. 27,475, due to a much larger crop as compared with the previous year.

Metals.—Rs. 4,240, due to imports of iron and machinery into the province for erection of ginning factories.

Oil-seeds.—Rs. 38,692, due to better production and heavier exports of castor-seeds to Bombay *viâ* the sea; larger imports of til-seeds, and larger despatches of castor-seeds from Porbandar and Verával Sections.

Provisions.—Rs. 16,704, due to an exceptionally good crop of mangoes.

Railway Plant and Rolling Stock for Public and Foreign Railways.—Rs. 9,866, due to carriage over the line of consignments of steel rails and wooden sleepers for the Morvi Railway.

Stone and Lime.—Rs. 3,988, due to a larger quantity of stone having been carried from the Junágad Quarry to Gondal and Rájkot.

Timber.—Rs. 33,217, due to continued demands for building purposes, such as erection of ginning factories.

There were decreases in the following staples :—

Grain and Pulse.—Rs. 43,639, due to less imports from other provinces on account of the local production being good.

Oils.—Rs. 3,950, due to smaller imports from foreign Railways.

The following table is a comparison of certain figures connected with goods working :—

		1889.	1890.	1891.	1892.	1893.	1894.	1895.
Average weight of a goods train—								
Freight	Tons.	61·22	62·88	62·50	60·81	58·31	62·45	58 70
Dead weight	„	111·93	116·06	114·02	114·24	119·04	118·12	119·02
Total ...		173·15	178·94	176·52	175·05	177·35	180·57	177·72
Average load of a Goods Vehicle (including loaded and empty) ...	Tons	2·47	2·45	2·48	2·45	2·27	2·45	2·39
Average load of a loaded Goods Vehicle...	„	3·59	3·76	3·58	3·48	3·24	3·43	3·34
Average receipts per Goods Train-mile	Rs.	3·07	2·84	3·23	3·27	3·37	3·42	3·40
Average cost of hauling a Goods Train-mile	„	1·87	1·92	2·36	2·52	2·07	2·11	2·12
Average receipts per Ton-mile ...	Pies.	9·62	8·68	9·93	10·34	11·11	10·50	11·11
Average cost of hauling per Ton-mile	„	5·86	5·87	7·26	7·97	6·82	6·48	6·95
Goods Train-mileage per mean mile open	No.	738	745	580	663	852	685	762
Gross Goods Earnings per mean mile open	Rs.	2,265	2,117	1,876	2,169	2,872	2,338	2,588

The receipts and tonnage of Railway material carried for construction purposes compare as follows with 1894 :—

	Rs.		Tons.
1894	7,077	... ...	10,763
1895	7,424	... ...	9,575
Increase ...	347	Decrease ...	1,188

The increase in receipts and decrease in tonnage was due to the materials being carried longer distances.

Through booking between Bombay and stations on the Bhávnagar-Gondal-Junagad-Porbandar Railway, including Jetalsar-Rajkot Railway and Morvi Railway—The steamer service continued between Bombay and Bhavnagar during the year 1895 from 1st January to 16th June. The earnings for the period amounted to Rs. 89,242 as given below :—

Passenger Traffic.

Gross Earnings	... Rs. 14,706
Total number of passengers carried ...	... No. 12,916

Goods.

Gross Earnings	... Rs. 74,536
Tons of goods carried	... No. 26,084

On the system as a whole.

B.-G.-J.-P. Railway.—The year 1895 shows rather better results than 1894 and, with the exception of 1893, is the best since the present Bhavnagar-Gondal-Junagad-Porbandar Railway has been worked, the gross earnings being Rs. 1,11,934, and the net profit Rs. 29,884 more, and if it had not been for the abnormal expenditure of over Rs. 73,000, from Revenue on the Oojet Bridge, the net earnings of the system would have been Rs. 8,94,219, representing a dividend of very nearly 5 per cent. on the Capital, which again has been largely increased in the last two years having risen from Rs. 1,72,28,861 in 1893 to Rs. 1,76,00,032, on which latter sum the actual 4·67 dividend of 1895 has been earned.

The general results of working show a steady increase of traffic, and earnings on the system as a whole since 1892, and the Sectional figures work out as below :—

	Gross Earnings.		Net Earnings.	
	1892.	1895.	1892.	1895.
	Rs.	Rs.	Rs.	Rs.
Bhavnagar	8,33,814	9,97,894	3,20,599	5,50,577
Gondal-Porbandar	5,13,377	6,64,909	59,018	2,67,121
Junagad	2,29,423	2,88,164	58,705	4,573

The Bhavnagar dividend is very good indeed, and the Gondal-Porbandar nearly as good as 1893, which was far and away the highest recorded since the amalgamation of the Gondal-Porbandar accounts.

The Junagad Section shows poor results, but the large expenditure for the Oojet Bridge reconstruction explains this, and if it had not been for this abnormal charge, the dividend would have been nearly $2\frac{1}{4}$ per cent. in spite of the increase of two-and-a-half lakhs to the Capital since 1893. The earnings on this section show a decided rise since 1892, and are keeping up though the improvement is not so rapid as on the Bhavnagar and Gondal-Porbandar Sections, and till the renewal of the useless "Gir" sleepers and the Oojet Bridge reconstruction is completed, much cannot be expected in the way of a dividend. With the line however in good order, as it will now soon be, better results may be expected in the future, though its high construction charges will always handicap it.

The Jetalsar-Rajkot line continues to develop, and this year the dividend is over 5 per cent.

Morvi Railway—(2' 6" *Gauge*).

The result of the year's transactions as compared with that for 1894, is shown in the subjoined table :—

	1894.	1895.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	3,20,348	3,69,972	+49,624
Working expenses	1,77,680	1,69,845	—7,835
Net earnings	1,42,668	2,00,127	+57,459
Percentage of expenses on gross earnings ...	55·46	45·90	—9·56
	T. Miles.	T. Miles.	T. Miles.
Train mileage	144,341	155,987	+11,646
	Rs.	Rs.	Rs.
Receipts per train mile	2·22	2·37	+0·15
Expenses do.	1·23	1·09	—0·14
Net receipts do.	0·99	1·28	+0·29
Open mileage	94·36	94·36	.....
Receipts per open mile	3,394	3,920	+526
Expenses do.	1,883	1,799	—84
Net receipts do.	1,511	2,121	+610
Percentage of net earnings on Total Capital Outlay to the end of the year	6·41	8·34	+1·93

The following table gives the details of earnings and working expenses for 1895 compared with 1894 :—

	1894.	1895.	Difference.
	Rs.	Rs.	Rs.
Earnings—			
Coaching	2,14,869	2,36,919	+22,050
Goods	98,949	1,25,077	+26,128
Electric Telegraph	4,960	5,812	+852
Sundries	1,570	2,164	+594
Total ...	3,20,348	3,69,972	+49,624

	1894.	1895.	Difference.
	Rs.	Rs.	Rs.
Working Expenses—			
Maintenance of Way, Works and Stations ...	45,264	38,509	—6,755
Locomotive Expenses	50,522	54,889	+4,367
Carriage and Wagon Expenses	10,320	6,979	—3,341
Traffic Expenses	36,762	38,889	+2,127
General Charges	33,377	30,050	—3,327
Special and Miscellaneous Expenditure ...	1,435	529	—906
Total, Working Expenses ...	1,77,680	1,69,845	—7,835
Net Earnings ...	1,42,668	2,00,127	+57,459

The mean mileage worked during the year was the same as in the previous year, *viz.* 94·36.

The Revenue transactions show that whereas the gross earnings increased from Rs. 3,20,348 in 1894 to Rs. 3,69,972 or by Rs. 49,624, there was a decrease in the working expenses from Rs, 1,77,680 to Rs. 1,69,845, or by Rs. 7,835, thus resulting in net earnings of Rs. 2,00,127, an improvement over the preceding year of Rs. 57,459.

The number of passengers carried increased from 284,521 to 309,113, and the earnings from Rs. 2,14,869 to Rs. 2,36,919.

The increase may be ascribed to the general development of the traffic which was steady throughout the year and free from monsoon interruption, as also to the public appreciating the route *vid* Rajkot which connects this line with the Jetalsar-Rajkot Branch of the B.-G.-J.-P. Railway.

The tonnage of goods carried rose from 21,934·60 tons to 28,725·98 tons, and the earnings from Rs. 98,949 to Rs. 1,25,077.

The noticeable increase was in cotton raw which rose from 2,971 to 5,231 tons in quantity carried and from Rs. 25,569 to Rs. 44,343 in amount earned. This may be ascribed to a much better cotton crop in Morvi than in the previous year.

There were also increases under coal for the public, grain, provision, railway plant, and stone and lime amounting respectively to Rs. 2,001, Rs. 3,401, Rs. 2,120, Rs. 2,319 and Rs. 1,595.

The noticeable decreases occurred under oils, oil-seeds and sugar amounting respectively to Rs. 1,000, Rs. 2,475, and Rs. 1,232.

The principal fluctuations in working expenses were decreases of Rs. 6,755, Rs. 3,341 and Rs. 3,327 respectively under "Maintenance of Way, Works and Stations", "Carriage and Wagon Expenses" and "General Charges", and increases of Rs. 4,367 and Rs. 2,127 respectively under "Locomotive Expenses" and "Traffic".

The decrease under "Maintenance of Permanent Way, Works and Stations" was chiefly due to less repairs and renewals of permanent way done, that under "Carriage and Wagons" to a portion of Superintendent's pay adjusted against Darbar as also to less repairs done to carriages and wagons and that under "General Charges" to a credit adjustment carried out during the year for the cost of stationery, books and forms.

The increase under "Locomotive Expenses" is chiefly due to the train mileage run being more by 11,646 miles, and that under "Traffic" to increase in the strength and wages of the staff, as also to the purchase of some wagon covers and ropes.

Chapter VIII.—Rates and Fares.

(For the Calendar year 1895.)

G. I. P. Railway System—(*Standard Gauge*).

The following are the principal alterations in Goods Rates in the year 1895 over the G. I. P. Railway:—

Date.		Prior to 1895.	Alteration in 1895.
		Pies per ton per mile.	Pies per ton per mile.
31st December 1894.	Cotton seed when booked from stations Chalisgaon, Kajgaon, Pachora, Jalgaon, Khamgaon, Shegaon, Akola, Murtizapur, Amraoti, Dhamangaon, Wardha, and *viâ* (*viâ* Itársi and Agra to *viâ* Delhi) ...	Varying from 6·04 to 5·36	Varying from 5·93 to 5·26
,,	Vacuum oil at owner's risk when booked other than as mill stores from Bombay *viâ* Itarsi to Agra Fort	14·14	9·72
	Do. to Agra Cantonment...	14·20	9·74
	Do. to *viâ* do. ...	14·14	9·74
	Do. to ,, Agra Junction.	14·14	9·73
	Do. to Cawnpore ...	14·08	9·75
	Do. to *viâ* do. ...	14·08	9·75
,,	Copra or dry cocoanuts and turmeric in full wagon loads of not less than 10 tons at owner's risk when booked from Madras *viâ* Raichur and Itarsi to *viâ* Agra for Delhi...	13·93	5·78
	Do. to Agra Fort ...	13·93	7·51
	Do. to Agra Cantonment ...	13·93	7·52
,,	Cotton piece-goods when booked from Jalgaon to *viâ* Wadi for traffic to any station on the Nizam's State Railway	20	14
,,	Sulphuric acid when booked from Cawnpore to Kirkee *viâ* Itarsi ...	28·41 O. R. 40·42 R. R.	20·45 O. R. 28·41 R. R.
	Do. *viâ* Jubbulpore ...	28·08 O. R. 39·86 R. R.	18·87 O. R. 25·76 R. R.
,,	Grain and common seeds when booked from Kutni, Rupanud, Chandia, Umaria, Karkeli, Birsingpur, Ghunghutri, Sahdal Burhar Anuppur, Jaithari, Khaire Pendra Road, Khodri, Khonsara, Belghana, Kola, Ghutku to Bombay *viâ* Nagpur	3·38	4·00
	Do. *viâ* Jubbulpore ...	5·00	Varying from 4·47 to 3·94
31st January 1895 ...	*Full pressed cotton*— When booked from Akola, Borgaon, Katepurna, Murtizapur, Mana, Kuram, Badnera, Amraoti, Malker Chandur, Dhamangaon, Pulgaon, Degaon, Wardha, Sonegaon, Hinganghat Nagri, Warora, Paunar, Sindi, Bori, and Nagpur and *viâ* Nagpur to Bombay;	Varying from 18·28 to 11·01 excluding terminal.	Varying from 16·44 to 5·92 excluding terminal.
	And also from abovementioned stations to Nagpur for local traffic and to *viâ* Nagpur	Varying from 14·29 to 13·78 excluding terminal.	18·00 excluding terminal.
	Serampur or printing paper and paper coarse and waste when booked from Ranigunga to Bombay *viâ* Asansol and Nagpur	Varying from 14·43 to 10·28	Varying from 14·43 to 4·52

Date.		Prior to 1895.	Alteration in 1895.
31st January 1895...	Wet hides and skins in barrels at owners' risk in consignments of not less than 270 maunds when booked from Cawnpore and *viâ* to Bombay *viâ* Itarsi...	8·44	4·63
„	Oats in consignments of not less than 260 maunds when booked from Poona to Madras *viâ* Raichur.	8·75	5·52
28th February 1895.	Wheat, other grain, and common seeds when booked from Bengal Nagpur Railway Stations between Kampti and Raj Nandgaon to Bombay *viâ* Nagpur ...	Varying from 4·47 to 3·06	Varying from 3·58 to 2·80
31st January 1895.	Kerosine oil when booked from Bombay *viâ* Itarsi		
	Do. to Kalpi	6·28	5·37
	Do. to Ait	6·34	6·27
	Do. to Karvi	5·99	5·19
	Do. to Banda... ...	6·34	6·18
	Do. to Lalitpur ...	10·42	9·70
„	Oilcake of any kind when booked from Cuddapah to Poona *viâ* Raichur	8·75	6·79
28th February 1895.	Matches subject to a minimum of one maund when booked from Bombay to Cawnpore and *viâ*, *viâ* Itarsi	20·48	14·96
28th February 1895.	Leather common or rough in bales and leather manufactured goods in boxes or bales when booked from Cawnpore to Madras *viâ* Itarsi	Rough 9·68 manufactured 13·93	7·15 10·72
Do. and 31st July 1895.	Revised 1st, 2nd, 3rd, 4th, 5th class goods rates and special rates for certain commodities between Bombay and *viâ* Khandwa for traffic to or from stations Khandwa to Chambal both inclusive. ...	Varying from 40 to 8	Varying from 40 to 5·20
14th March 1895 ...	Revised class rates between Jubbulpore and Nagpur and all intermediate stations in local booking ...	Varying from 40 to 8	Varying from 40 to 7·86
30th March 1895...	Kerosine oil flashing at or above 76 degrees Abel's test upon actual weight when booked from Bombay to *viâ* Agra Junction... ...	7·69	6·74
	Do. to Agra Fort ...	7·45	6·76
	Do. to „ Cantonment and *viâ*	7·45	6·77
	Do. to „ Cawnpore and *viâ*...	6·17	4·51
30th March 1895....	Cocoanuts whole in bags or loose and kernels dried in bags at owner's risk in wagon loads of not less than 200 maunds when booked between Bombay and *viâ* Nagpur for traffic to Howrah	14·43	8·00
„ ...	Jagri under Rs. 8 per maund at owner's risk in consignments of not less than 270 maunds between Bombay and *viâ* Nagpur for traffic to Howrah	10·28	10·18
„ ...	Broad cloth, piece-goods, and cotton cloth, drapery of cotton, &c., when booked from Bombay to *viâ* Nagpur for traffic to Howrah ...	20·41	13·08
11th April 1895 . ... 14th May 1895	Singareni coal when booked from Yellendu to certain stations on the G. I. P. Railway *viâ* Wadi ...	4·05	Varying from 2·70 to 4·06

Date.		Prior to 1895.	Alteration in 1895.
30th April 1895 ...	Grain and common seeds in consignments of not less than 270 maunds from *viâ* Raichur to *viâ* Itarsi when booked from stations on the Madras Railway to Agra Cantonment and *viâ* Agra Fort and *viâ* Agra Junction and Cawnpore and *viâ* 7 as. 8 p. per maund and certain stations on the Indian Midland Railway	6·70	3·43
„ ...	Full pressed cotton when booked from Bombay and Colaba to Nagpur should be charged at special class rate at owner's risk, and 1st class rate at Railway risk, *viz.*, Re. 0-14-2 and Rs. 1-1-2 respectively and when booked from Colaba 1 pie should be added ...	14·85	{ 8·83 O. R. 10·70 R. R.
9th May 1895 ...	Salt when booked from Southern Mahratta Railway Stations *viâ*		
29th June 1895 ...	Poona to Bombay.	7·94 to 6·13	5·67 to 4·54
	Do. Dadar and *viâ*	7·81	5·68 to 4·74
	Do. Coorla	7·85	5·65 to 4·42
	Do. Thana	8·18	5·45 to 4·36
	Do. Kalyan	8·48	5·65 to 4·40
	Do. Karjat	9·31	5·59 to 4·66
	Do. Campoli	8·88	5·64 to 4·43
30th March 1895 ...	Full pressed waste cotton when booked to Bombay *viâ* Itarsi from Agra Fort Rs. 1-5-6	14·16	8·30
	Agra Cantonment Rs. 1-5-6 ...	14·19	8·32
	Viâ Agra Cantonment Rs. 1-5-6 ...	14·16	8·32
	Do. Junction Rs. 1-5-6 ...	14·16	8·28
	and Cawnpore and *viâ* Rs. 1-5-6 ...	14·06	8·30
	From *viâ* Agra for traffic from Etawah Rs. 1-7-7	14·16	7·83
„ ...	Hemp unpressed when booked from Vizianagram to Bombay *viâ* Wadi Rs. 1-7-1	12·49	9·00
„ ...	Full pressed cotton when booked from Malkapur to Jubbulpore, 14 annas per maund	15·14	12·23
30th March 1895 ...	Kerosine oil upon actual weight when booked from Bombay to		
30th April 1895 ...	Jubbulpore locally and *viâ* Jubbulpore Re. 0-14-0	10·52	7·37
29th June 1895 ...	Potatoes when booked from Bombay to *viâ* Aligarh for traffic to Kathgodam only Re. 0-13-7 per maund up to Agra...	5·52	5·23
„ ...	Linseed when booked from Adoni to Bombay *viâ* Raichur is charged from *viâ* Raichur to Bombay at Re. 0-8-7	8·05	6·28
	Turmeric in quantities of not less than 270 maunds when booked from Cuddapah to Bombay *viâ* Raichur at owner's risk is charged from *viâ* Raichur to Bombay at Re. 0-9-6 per maund	14·51	6·92
„ ...	Piece goods cotton pressed packed from Bombay to *viâ* Wadi for traffic to Bezwada and *viâ* at Re. 0-14-7 and	17·38	12·59
	——————Re. 0-14-6 ...	17·31	12·48
„ ...	Kerosine oil at owner's risk from Bombay to Bezwada and *viâ*, *viâ* Wadi; the G. I. P. proportion up to Wadi is Re. 0-7-10 and ...	8·55	6·77
	——————Re. 0-7-9 ...	8·40	6·66

Date.		Prior to 1895.	Altera tion in 1895.
29th June 1895 ...	Turmeric from *viâ* Bezwada to Bombay *viâ* Wadi. The G. I. P. Railway proportion is Re. 0-9-9 per maund	12·57	8·43
	Glass broken at owner's risk between Bombay and Agra Fort Re. 0-11-10.	9·72	4·57
	Agra Cantonment Re. 0-11-10 ...	9·74	4·58
	Viâ Agra Cantonment Re. 0-11-10..	9·74	4·58
	Viâ Agra Junction Re. 0-11-10 ...	9·73	4·56
31st May 1895 ...	Bones for manure at owner's risk booked from stations between Gurra and Jubbulpore and *viâ* both inclusive to Bombay	6·50 to 3·60	6·41 to 3·51
	And to Thana	6·50 to 3·60	6·52 to 3·49
	Cotton loose in bales when booked from Karna station on the Delhi-Umballa-Kalka Railway to Bombay *viâ* Delhi, Agra and Itársi ...	32·99	Varying from 28·34 to 23·33
	Material for the construction of the Ujjain-Bhopal Railway when booked from Bombay to Itársi Re. 0-6-7.	Varying from 8 to 40 pies excluding terminal.	4·50
	Itarsi *viâ* Khandwa Re. 0-5-0.		
	Itarsi from *viâ* Itarsi to *viâ* Khandwa Re. 0-1-7.		
31st May 1895 ...	Charcoal at owner's risk when booked from Chandni and Mandwa to Bombay	9·31	6·00
		9·33	6·00
	Grain including wheat, common seeds when booked from *viâ* Itarsi to Bombay from stations on the Indian Midland Railway except Agra and Cawnpore will be charged at Re. 0-7-2 per maund	6·52 to 4·19	5·00
29th June 1895 ...	Full pressed waste cotton when booked from Etawah to Bombay *viâ* Cawnpore the rate from *viâ* Itarsi to Bombay is Rs. 0-11-3 per maund...	14·06	7·88
	Wool loose from Umballa Cantonment to Bombay *viâ* Cawnpore and Itarsi is charged over the G. I. P. Railway proportion Rs. 1-9-0 ...	32·99	17·44
29th June 1895 ...	Do. *viâ* Cawnpore and Jubbulpore Rs. 2-13-2; G. I. P. proportion Rs. 1-15-2	30·68	16·39
31st July 1895 ...	Chillies when booked from Bombay *viâ* Itarsi to Agra Fort Rs. 2-0-7.	14·14	12·58
	Do. Agra Cantonment and *viâ* Rs. 2-0-7 ...	14·20	12·61
	Do. Agra *viâ* Junction Rs. 2-0-7	14·14	12·55
	Do. Cawnpore and *viâ* Rs. 1-10-0 ...	14·08	10·04
29th June 1895 ...	Singareni coal in full wagon loads when booked from Yellandu *viâ* Dadar to Surat and Broach; ...	4·05	2·98
		G. I. P. R. Proportion.	
	To Surat Re. 0-7-5, Re. 0-3-5 ...	4·05	2·98
	To Broach Re. 0-7-9, Re. 0-3-5 ...	4·05	2·98
29th June 1895 ..	Leather in eight ton lots between Dadar and Madras should be charged at Rs. 1-0-4 per maund; G. I. P. Railway proportion Re. 0-9-1.	14·49	6·71
31st July 1895 ...	Wines and spirits in cask in consignments of 162 maunds from Bombay to Nagpur and to *viâ* Nagpur will be charged at Rs. 1-6-8 per maund	14·85	14·12
		14·43	

Date.		Prior to 1895.	Alteration in 1895.
31st July 1895 ...	Turmeric in full wagon loads of 270 maunds and dry cocoanuts in full wagon loads of 200 maunds from Madras to Cawnpore and *vid* Cawnpore and to certain stations on the Indian Midland Railway *vid* Itarsi, the rate from *vid* Raichur to *vid* Itarsi will be Rs. 1-0-10	13·93	7·52
" ...	Paper, coarse such as common paper, used for packing and other purposes including Serampur or printing and waste paper in consignments of not less than 270 maunds at owner's risk and in any quantity at Railway risk when booked between Bombay and Agra Fort Rs. 1-9-2	14·14 to 9·72	9·72
	Do. Agra Cantonment Rs. 1-9-2 ...	14·20 to 9·74	9·74
	Do. *Vid* Agra Cantonment Rs. 1-9-2 .	14·14 to 9·74	9·74
	Do. *Vid* Agra Junction Rs. 1-9-3 ...	14·14 to 9·73	9·73
	Do. Cawnpore and *vid* Rs. 1-9-3 ...	14·08 to 9·75	9·75
" ...	Cast iron pipes uncounted at owner's risk on a minimum of 150 maunds at Re. 1-0-6 per maund from Bombay to Jubbulpore	10·52	8·68
	and cast iron columns uncounted at owner's risk on actual weight and plates, sheets, sheets corrugated in bundles secured packed, hoops and rods in bundles properly packed or secured rails, bars, scrap, dust, angle, old flat or square beams, girders, joists, bolts, channel bands or ties properly packed or secured, iron in sheets perforated, nails, screws, wire, hinges, pig, rivets, fastenings and nuts when booked from Bombay to Jubbulpore at Re. 0-14-5 per maund ...	2nd Class, *i.e.* 14·68	7·58
" ...	Stone, subject to a minimum of 270 maunds per wagon from Shahabad to Bombay and to other stations up to 350 miles; ·13 pies per maund per mile over 350 miles; ·11 pies per maund per mile, plus terminal charge Rs. 1-8-0 per wagon.	Varying from 1st Class to 4·86 pies per ton per mile.	Up to 350 miles 3·60 over 350 miles 3 pies per ton per mile with terminal of Rs. 1-8-0 per wagon.
" ...	Assimilation of the 5th class rate between Bombay and Nagpur, *viz.*: Rs. 4-0-5, and *vid* Nagpur Rs. 3-15-9	.....	.....
" ...	Grain and common seeds from Cawnpore and *vid* to Poona and *vid*, *vid* Itarsi; G. I. P. proportion Re. 0-7-10	6·10	5·11
31st August 1895 ...	Light Railway material which embraces machinery, iron, steel, rails, girders, &c., which are used in connection with the construction, maintenance, &c., of a light Railway when booked from Bombay to Gwalior should be charged at a special through rate of Re. 0-9-6 per maund, of which the G. I. P. proportion is Re. 0-5-9.	Varying from 14·49 to 10·42.	4·02

Date.		Prior to 1895.	Alteration in 1895.
31st August 1805 ...	Full pressed cotton when booked from B. B. & C. I. Railway *vid* Dadar to Nagpur should be charged at the special class rate at ownre's risk and 1st class at Railway risk, *viz.*, Re. 0-14-2 and Rs. 1-1-2 ...	18·52	O. R. 8·90 to R. R. 10·78.
,, ...	Sweet oil, linseed oil, cocoanut oil and poppy seed oil when booked between Bombay and Cawnpore *vid* Itarsi at O. R. Rs. 1-9-3 = R. R. Rs. 2-4-5, of which G. I. P. proportion is annas 14, and Rs. 1-4-2.	Varying from 9·78 to 14·49.	9·75 O. R. 14·06 R. R.
,, ...	Gum at owner's risk on actual weight when booked from Mau-Ranipur to Bombay—		
	Rs. a. p.		
	I. M. Railway 0 9 9		
	G. I. P. Railway ... 1 0 3	14·49	11·35
	and Kulpahar to Bombay—		
	Rs. a. p.		
	I. M. Railway ... 0 10 8		
	G. I. P. Railway ... 0 15 7	14·49	10·87
30th September 1895. 30th October 1895.	Ghee in barrels, tubs, iron drums and in secure outer cases at O. R. when booked from stations between Khandwa and Jubbulpore to stations beyond Bassein on the B. B. & C. I. Railway *vid* Dadar...	1st Class varying from 10·16 to 10·60.	8·00
31st August 1895 ...	Vaccum oil when booked from Bombay to Bowringpet section on the Madras Railway *vid* Raichur and Arconum at Rs. 1-2-0 per maund, of which the G. I. P. proportion is 9 annas	7·88	6·60
,,	Full pressed cotton when booked from *vid* Poona, Chalisgaon, Mhasawad, Barsi Road, Dhamangaon Bhusawal *vid* Hotgi, Kajgaon, Malkapur, Raichur and *vid* Pachora Wardha, Ahmednagar, Maheji, Khamgaon, Manmad, Jalgaon Shegaon, Akola, Murtizapur, Badnera, Amraoti, Nagpur and *vid* to *vid* Khandwa will be charged at the rate of 18·75 pies per ton per mile plus terminal of 8 pies per maund.	Varying from ordinary 2nd Class to 19 pies per ton per mile with 8 pies terminal.	18·75 pies with 8 pies terminal.
,,	Serampur or printing paper and for paper coarse and waste in booking to Bombay *vid* Asansol and Nagpur in force from 1st September 1895.		
	For consignments in any quantity at Railway risk.		
	B. N. R. G. I. P.		
	Rs. a. p. Rs. a. p. Rs. a. p.		
	1 10 2 + 1 7 2 = 3 1 4	14·43 to 10·28	14·43 to 4·52
	for consignments under 54 maunds at O.R. Rs. a. p. Rs. a. p. Rs. a. p. 1 1 5 + 1 0 6 = 2 1 11		
	for consignments of from 54 to 169 maunds at O.R. 0 13 1 + 0 10 10 = 1 7 11		
	for consignments of 270 maunds and over at O.R. 0 8 9 + 0 7 3 = 1 0 0		
	This cancels the rates quoted in Circular No. 35 of 31st January 1895.		

Date.		Prior to 1895.	Alteration in 1895.
31st August 1895 ...	Salt booked to Gullaguda on the Nizam's State Railway *viâ* Wadi from Bombay—		
	G. I. P. proportion. Old rate. Rs. a. p. / New. Rs. a. p.		
	0 8 1 / 0 7 9	6·97	6·68
	Do. from Dadar ... 0 7 11 / 0 7 8	6·91	6·70
	,, *viâ* Dadar ... 0 7 6 / 0 7 2	6·55	6·26
	,, from Coorla ... 0 7 10 / 0 7 7	6·92	6·69
	,, ,, Thana ... 0 7 8 / 0 7 4	6·98	6·67
	,, ,, Kalyan ... 0 7 5 / 0 7 1	7·01	6·69
	,, ,, Karjat ... 0 6 10 / 0 6 6	7·05	6·71
,,	Oilcake loose in quantities of not less than 270 maunds when booked from Bombay to Poona, Loni and Hadapsar should be charged at a rate of Re. 0-3-7 per maund.	11·80 11·42 11·63	9·76 8·93 9·44
,,	Gunny when booked from *viâ* Jubbulpore and *viâ* Khandwa should be charged at 6 annas per maund	9·96	7·39
	Flour when booked from Bombay to Bangalore *viâ* Raichur and Arconum in consignments of not less than 270 maunds at owner's risk should be charged at 11 annas per maund; G. I. P. proportion Re. 0-5-3 ...	10·42	3·84
30th September 1895. 8th November 1895.	Food grain from stations on Dhond and Manmad Line, *viz.* stations from Ahmednagar to Manmad, to stations on the Jubbulpore line between Harda and Jubbulpore and *viâ* and also *viâ* Itarsi for Cawnpore and *viâ*	9·15 to 8·85	7·58 to 6·71
31st August 1895 ...	Timber in truck loads at owner's risk when booked from Bombay to Morar Road *viâ* Itarsi should be charged at a through rate of 12 annas per maund; G. I. P. proportion Re. 0-7-3	6·79	5·09
30th September 1895. 28th November 1895.	Ghee at owner's risk in barrels, tubs, iron drums and tins when booked from Kutni to Bombay *viâ* Jubbulpore will be charged at Re. 1-3-4 per maund; G. I. P. proportion Re. 1-0-8	Varying from 14·33 to 10·17.	8·76
30th September 1895.	Bran when booked from Bombay to Bangalore *viâ* Raichur and Arconum should be charged at a through rate of Re. 0-12-11 per maund, of which, G. I. P. proportion is Re. 0-6-2	10·42	4·51
,,	Bran when booked from Bombay to Bangalore City *viâ* Raichur and Guntakal should be charged at a special rate of Re. 0-12-11 per maund, of which G. I. P. proportion is Re. 0-6-8...	7·25	4·90
	Rs. a. p.		
,,	Full pressed cotton when booked from Agra Fort 0 12 7	15·35	7·72
	G. I. P. proportion. 0 3 8		
	Do. from Agra Cantonment and *viâ* ... 0 12 4	15·35	7·54
	G. I. P. proportion. 0 3 7		
	Do. *viâ* Agra Junction. 0 12 4	15·35	7·54
	G. I. P. proportion. 0 3 7		

Date.		Prior to 1895.	Alteration in 1895.
	Full pressed cotton when booked from Agra Fort *vid* Agra and Morena ... ... 0 12 7 G. I. P. proportion. 0 4 7 to Jubbulpore *vid* Itarsi.	15·35	9·71
30th September 1895.	Ammunition and other explosive or combustible articles when booked from Kirkee to *vid* Khandwa for traffic to Mhow Rs. 2-13-10 per maund	40·53	38·17
„ ...	Flour country including atta, maida, in bags, tins and barrels, in full wagon loads of not less than 270 maunds when booked from Delhi to Bombay *vid* Agra and Itarsi will be charged at Re. 0-12-0 per maund; G. I. P. proportion Re. 0-5-0	10·42	3·50
„ ...	Wool loose at owner's risk on actual weight when booked from *vid* Delhi to Bombay *vid* Itarsi for traffic from Umballa Cantonment and *vid* should be charged at a through rate of Rs. 3-2-8 per maund; G. I. P. Re. 1-7-11	32·99	16·73
30th October 1895...	Kerosine oil upon actual weight at owner's risk when booked from Bombay to Jubbulpore should be charged at a rate of Re. 0-12-0 per maund, the rate notified in Circular 137 of 30th April 1895 of Re. 0-14-0 is cancelled...	10·52	6·31
30th September 1895. 30th October 1895...	Grain edible when booked from certain stations on the Rewari-Ferozepore section of the B. B. & C. I. Railway to Hyderabad *vid* Khandwa and Wadi should be charged at a through rate of Re. 1-6-4 per maund; the G. I. P. proportion is Re. 0-8-3	6·90	4·88
11th October 1895... 30th October 1895...	Coal ashes over the G. I. P. Railway in force from 14th October 1895: For the 1st 20 miles at Re. 0-5-0 per wagon per mile. From 21 to 50 miles at 4½ annas do. „ 51 to 100 do. at 4 do. do. Above 100 do. at 3as. 4 pies do.	3½ pies per mile per cubic yard.	From 1 to 20 miles 5 annas per wagon per mile, from 21 to 50 miles Re. 0-4-6, from 51 to 100 miles 4 annas and above 100 miles Re. 0-3-4 per wagon per mile.
16th October 1895...	Flour consigned by the Union Flour Mills Company when booked from Bombay to stations on the G. I. P. Railway should be charged at the rate of ·3 of a pie per maund per mile at owner's risk when sent in lots of not less than 81 maunds...	1st class 10 to 9 plus 8 pies terminal at each end.	·3
30th October 1895...	Teak squares, when booked from Bombay to Morar Road on the Indian Midland Railway *vid* Itarsi should be charged at a special through rate of Re. 0-12-0 per maund; G. I. P. proportion Re. 0-7-3	6·79	5·09
„ ...	Full pressed cotton when booked from stations on the Rajputana-Malwa Railway to Kurla *vid* Khandwa should be charged over the G. I. P. Railway at Re. 0-11-5 per maund	13·58	10·75

Date.		Prior to 1895.	Alteration in 1895.
30th October 1895...	Kerosine oil, flashing at or above 76 degrees, Abel's test, when booked from Bombay to Agra Fort ...	6·76	5·41
	to „ Cantonment and *viâ*.	6·77	5·42
	to „ Junction ...	6·74	5·39
	viâ Itarsi should be charged at through rate of 14 annas per maund; G. I. P. proportion Re. 0-7-9.		
„ ...	Casks empty when booked from Bombay to Cawnpore *viâ* Itarsi should be charged at a special through rate of Re. 1-7-4 per maund at owner's risk; G. I. P. Railway proportion of Re. 0-12-11... ...	9·75	9·02
„ ...	Kerosine oil flashing at or above 76 degrees, Abel's test, on actual weight at owner's risk when booked from Bombay to *viâ* Wadi for traffic to the undermentioned stations, *viz.*, Hyderabad, Lingampalli, Shankarpalli, Gullaguda, Vikurabad, Dharur, Tandur, Nawandgi	10·56	10·56 to 4·95
30th October 1895...	Grain and seeds from 29th August 1895 when booked from Bombay to Hyderabad (Deccan) on the Nizam's Guaranteed State Railway *viâ* Wadi are charged at a special through rate of Re. 0-9-4, of which G. I. P. proportion is Re. 0-6-4 ...	8·69	5·46
28th November 1895.	Silicate of soda and caustic soda when booked from Bombay to the undermentioned stations *viâ* Itarsi, *viz.*:—		
	Rs. a. p. / G. I. P. R. Rs. a. p.		
	To Agra Fort . 1 9 2 / 0 13 11	14·16	9·72
	„ „ Cantt. 1 9 2 / ...	14·20	9·75
	„ *viâ* „ 1 9 2 / ...	14·20	9·75
	„ „ Junct. 1 9 3 / ...	14·16	9·73
	„ Cawnpore & *viâ* ... 1 9 3 / 0 14 0	14·08	9·75
	and to stations under territorial arrangement.		
„ ...	Full pressed cotton when booked from certain stations on the G. I. P. Railway to *viâ* Itarsi for traffic to Delhi.	Varying from 18 to 19 pies with 8 pies terminal.	Varying from 14·97 to 11·06
„ ...	Potatoes in consignments of not less than 270 maunds at owner's risk when booked from Mettupalaiyam on the Madras Railway to Bombay *viâ* Raichur should be charged at a special rate of 12 annas per maund; G. I. P. proportion Re. 0-5-2 per maund	10·42	3·75
„ ...	Sugar from Bombay to Cawnpore and *viâ* Cawnpore *viâ* Itarsi should be charged at a special through rate of Re. 0-15-5 per maund; G. I. P. proportion Re. 0-8-6.	8·61	5·95
„ ...	Grain when booked from Dongargaon and Mandwa to Bombay—		
	Rs. a. p.		
	Dongargaon 0 8 6	9·40	8·12
	Mandwa 0 9 0	9·41	8·84

Date.		Prior to 1895.	Alteration in 1895.
28th November 1895.	Grain and common seeds when booked from Agra Station to Raichur *viâ* Itarsi will be charged at Re. 0-11-8 per maund, out of which G. I. P. proportion Re. 0-7-8 in force from 19th September 1895 ...	8·08	3·43
28th December 1895.	Kuppas half-pressed from 15 to 18 pounds per cubic foot should be charged at a rate of 11 pies per ton per mile with the additional terminal of 8 pies at each end and the minimum load of 7 tons per truck used when booked from G. I. P. Railway stations to Bombay ...	20	11
„ ...	Empty return iron drums at owner's risk when booked from Bombay—		
	To Agra Fort ... ... Rs. 1 a. 2 p. 2	9·72	7·02
	„ Cantt. & *viâ*... 1 2 2	9·74	7·03
	„ *viâ* Agra Junction ... 1 2 2	9·73	7·00
	„ *viâ* Cawnpore and *viâ* ... 1 6 10	9·75	8·82

B. B. & C. I. Railway System—(*Standard Gauge*).

Coaching Rates and Fares.—No alteration of any importance was made in the ordinary passenger fares or coaching rates during the year 1895, but with effect from the 1st December 1895 the Company had to adjust their fares for troops, (1) between Bombay and Hathras Road, Delhi and *viâ* Ferozepore Cantonment for Lahore, and (2) between *viâ* Khandwa and *viâ* Ferozepore Cantonment for traffic between Deolali and Lahore. This adjustment was consequent upon the reduced fares between those stations quoted by the G. I. P., Indian Midland, East Indian and North Western Railways in through booking *viâ* Itarsi and Agra.

Goods Rates.—The principal changes in goods rates made during the year were :—

I. An alteration of the rates for coal from Bombay and Dadar to Ahmedabad with a view to encourage the consumption of coal at Ahmedabad, the reduced rate of Rs. 6-4-0 per ton quoted for coal in consignments of 3,000 maunds and over was made applicable to consignments of coal in full wagon loads and the rules allowing a rebate of 7½ per cent. on quantities exceeding 10,000 tons during any one half year was introduced. The same terms were subsequently made applicable to Singareni coal booked *viâ* Dadar junction to Ahmedabad.

II. *Sugar*—In accordance with the arrangements recorded in the Minutes of Meeting held in Bombay on the 5th March 1895, it was arranged to divide for a period of 12 months the total traffic in sugar and jagri from stations on the Oudh and Rohilkhand, Rohilkhand and Kumaon and Bengal and North Western Railways to stations on the Malwa Section of the B. B. & C. I. Railway Company's system between Ajanti and Jaora, including Ujjain, one-half of the total traffic being allotted to the B. B. and C. I. Railway, for carriage *viâ* Cawnpore and the other half to the other Railways concerned to be carried *viâ* Khandwa.

To give effect to this arrangement the Company's sugar and jagri rates were adjusted with effect from the 1st November 1895.

III. *Increase in minimum weight.*—Consequent upon the carrying capacity of the metre guage goods stock having been increased, the mini-

mum weight for charge in the case of articles comprised in the list of sliding scale Division A rates and the other articles for which special or lower rates were quoted was raised from 160 to 190 maunds with effect from the first July 1895, both in local and through booking.

Subsequently, the opportunity was also taken to raise the minimum weight for consignments of salt (chargeable at special rates) from Bhayndar and Kharaghoda from 190 to 270 maunds, with effect from the 1st September 1895.

RAJPUTANA-MALWA RAILWAY SYSTEM—(*Metre Gauge*).

The information for this Railway is included in the report for the Bombay Baroda and Central India Railway.

SOUTHERN MARATHA RAILWAY SYSTEM—(*Metre Gauge*).

From 1st January a special rate of annas four per wagon per mile for jagri traffic from Nira to Poona and *viâ* was quoted in order to compete with cart route.

From 1st February a special rate of annas 2 pies 6 per wagon per mile for jagri traffic from Haspet to Bellary was quoted in order to compete with cart route.

A rebate on coal booked from and *viâ* Bezwada was arranged from 1st January.

The special rates quoted for certain articles between Kurnool and Yerraguntla, Cuddapah and Madras were made applicable for bookings through Kurnool Out-agency from 1st January in order to compete with canal and cart routes.

From 7th February the Out-agency at Phaltân was opened.

From 1st February the rate for cotton loose from Bijapur to Poona was reduced to 2 annas per wagon per mile in order to compete with broad gauge route.

From 1st March rates for carpets from Kurnool Out-agency to Hyderabad *viâ* Bezwada were equalized.

Rates for oil-cakes and grain from Bijapur to Poona were equalized with broad guage route from 1st March.

The revised rates for parcels and luggage in accordance with Conference Regulation of 1893 were introduced from 1st March.

Chikmagalur Out-agency was opened in March.

From 1st March through rates for gunnies and turmeric from Vizagapatam to Madras were quoted to compete with the sea route, *viâ* Cocanada.

From 1st March special rates of 5 annas 9 pies for jagri from Hindupur to Kurnool Town and 10 annas for tobacco dust from Kurnool Out-agency to Hindupur were quoted to compete with cart routes.

From 16th March and 1st June special through rates of 10 annas and 15 annas 6 pies for flour and vacuum oil from Bombay to Bangalore City were quoted. This was to draw traffic from the sea route *viâ* Madras.

The rate for grain and seeds between Bezwada and Bombay *viâ* Portuguese Frontier was equalized with the Wadi route from 1st April.

A special rate of 9 annas and 9 pies per maund for grain and seeds was quoted from Kurnool Out-agency to Bombay, *viâ* Portuguese Frontier in order to secure to the Railway the traffic that was being carted to Raichur and railed thence to Bombay. The rates for other neighbouring stations were also adjusted.

The rebate on loose cotton from certain stations to Guntakal for re-despatch to Bombay was increased from $\frac{1}{3}$rd to $\frac{2}{5}$ths of the freight on loose cotton from 1st June.

From 1st June salt rates from Bombay to certain stations *viâ* Portuguese Frontier were slightly reduced to place salt in those markets instead of the Madras salt.

From 1st April, 1st May and 1st September respectively rates for loose cotton from Davengeri to Bangalore City, Ranibennur to Hubli, and Davengeri to Hubli were reduced to 2 annas per wagon per mile to compete with cart routes.

Revised Risk-Note Form E. was introduced from 1st July.

Special wagon rates for cotton seeds from Hubli and Gadag to Kurnool Out-agency were quoted from 1st September.

From 1st June a special rate of 3 annas per wagon per mile was quoted for water melons to attract traffic and the rates for this article by the Southern Mahratta Railway route *viâ* Bezwada were also equalized with those for the broad gauge route *viâ* Guntakal and Wadi for traffic from Kurnool City to Secunderabad and Hyderabad.

From 1st June a special rate of $\frac{1}{6}$ pie per maund per mile with terminals was quoted for rice booked from and *viâ* Bezwada to Southern Mahratta Railway stations for distances of 275 miles and over in order to attract the traffic.

Minimum of bulky articles was reduced from 1st September to 54 maunds for an ordinary 4 wheeled truck, as the minimum of 81 maunds was considered too high.

Through booking of passengers between Bangalore City and United Kingdom by the Messageries Maritimes Company was introduced from 1st November.

From 1st October the rate for tanning bark for distances of 200 miles and over was reduced to 2 annas per wagon per mile.

From 1st November the fares for 3rd class passengers to and from junction stations and certain stations short of junction stations were slightly altered and adjusted with broad gauge route. This was on account of alteration in the fares of that class on the Madras Railway.

The issue of return tickets for horses and ponies at a fare and a half was introduced from 1st November.

The rate for cotton twist and yarn from Hubli was reduced to $\frac{1}{3}$ pie per maund per mile from 1st December 1895.

From 1st December reduced rates for carriage of single horned cattle, &c., by rail were quoted.

From 1st November special wagon rates of $2\frac{1}{2}$ annas per mile for tanning bark from Kurnool Out-agency and Rungapuram and Kurnool Road were quoted to keep the traffic from being carried to Gooty by road and thence railed to destination.

From 1st June, by an arrangement with the Madras, G. I. P. and S. I. Railways, it was agreed that the freight on goods booked between these Railways by any route should be that in force by the shortest route.

There were several other minor changes and additions in classification, &c.

Bhavnagar-Gondal-Junagad-Porbandar Railway—(*Metre Gauge*).

No important changes were made during the year, except in the 1st and 2nd Class passenger return ticket fares which were previously issued at a fare and a half and are now issued at a fare and two-thirds to assimilate them with the fares on the B. B. and C. I. Railway. A few changes in the classification of goods were also made in order to assimilate with the classification prevalent on the B. B. and C. I. Railway. A system of measurement of pressed bales was introduced in May 1895. Rates for three-quarter pressed bales were increased from 8 pies to 11 pies per ton per mile and for half-pressed bales from $9\frac{1}{2}$ pies to 14 pies for ton per mile.

MORVI RAILWAY—(2′ 6″ *Gauge*).

Through booking of passengers between Rajkot and Stations on Jetalsar-Rajkot and B.-G.-J.-P. Railway *viâ* Rajkot Junction has been introduced with effect from 1st January 1895.

Return tickets for passengers, carriages, dogs, &c., were introduced from 1st March 1895.

Payment for the half carrying capacity of wagons specially requisitioned by military authorities irrespective of what they are loaded with, or whether attached to troop or ordinary trains has been accepted and adopted with effect from 2nd February 1896 in accordance with Government Resolution No. 400 of 14th February 1896.

GAEKWAR'S DABHOI RAILWAY—(2′ 6″ *Gauge*).

No alteration was made in the coaching or goods rates and fares on this line during the year.

Chapter IX.—Miscellaneous.

Persons employed.

(*For the official year ending 31st March 1896*).

During the year, the officers present for duty were—

Government Supervision and Control.

Secretary to the Government of Bombay, Railway Department, and Consulting Engineer for Railways—Lieut.-Colonel H. O. Selby, R.E.

Under Secretary to Government, Railway Department, and Deputy Consulting Engineer for Railways—Mr. R. C. Dyson (on privilege leave from 21st September to 15th December 1895).

Mr. J. Willcocks, acting from 21st September to 15th December 1895.

Deputy Consulting Engineers for Railways—

Mr. P. P. Dease, from the 1st February 1896.

Mr. J. Willcocks, returned from leave on the 25th April 1895.

Mr. R. C. Dyson, F. C. H. (on privilege leave from 21st September to 15th December 1895).

Mr. J. Adam, F. C. H. (on privilege leave from 13th January to 23th January 1896).

Lieut. W. D. Waghorn, R.E.

Examiners of Guaranteed Railway Accounts, Bombay—

Major C. R. Hoskyn, R. E.

Mr. F. G. Heaven, from 25th November 1895.

Deputy Examiners of Guaranteed Railway Accounts, Bombay—

Mr. G. W. Sweet (on leave from 4th May to 28th July 1895 and on furlough from 21st March 1896).

Mr. C. Muirhead, from 30th July 1895.

Mr. A. Conley, till the 5th August 1895.

Examiner of Railway Accounts, Dhárwár—

Major E. A. Waller, R. E., till 20th April 1895.

Mr. J. Shaw, from 20th April 1895.

Heads of Departments of each Railway.

G. I. P. RAILWAY COMPANY.

Bombay.

Agent—Mr. G. A. Barnett, C.I.E.

Auditor—Mr. S. Gore-Browne.

Chief Engineer—Mr. H. Wenden (on leave from 15th August to 28th October 1895).

Mr. T. W. Pearson, District Engineer, acting, from 15th August to 28th October 1895.

General Traffic Manager—Mr. H. Conder (on furlough from 6th September 1895).

Mr. E. W. Keily, acting from 6th September 1895.

Locomotive Superintendent—Mr. R. L. Trevithick.

General Storekeeper—Mr. A. King.

Telegraph Superintendent—Mr. G. R. Webb (on furlough from the 28th March 1896).

Mr. J. E. Neale, Assistant Telegraph Superintendent, acting from 28th March 1896.

Superintending Surgeon—Dr. W. Kay.

Superintendent of Police (Poona)—Mr. Scannell till the 24th May, and Mr. Henderson from the 24th May.

B. B. AND C. I. RAILWAY (INCLUDING RAJPUTA'NA-MA'LWA RAILWAY).

Bombay.

Agent—Major H. D. Olivier, R. E.

Chief Auditor and Accountant.—Mr. J. O'Connell (on privilege leave from 9th May 1895 to 9th August 1895).

Mr. R. A. English, acting from 9th May 1895 to 9th August 1895.

General Traffic Manager—Mr. I. O'Callaghan.

Chief Engineer—Mr. H. I. B. Hargrave (on privilege leave from 2nd October 1895 to 2nd November 1895).

Mr. R. Whately, Resident Engineer, carried on the current work of the Chief Engineer's Office from 2nd October 1895 to 2nd November 1895.

Traffic Manager—Mr. C. A. R. Crommelin (on furlough from 9th April 1895, during which time Mr. D.ff. Powell acted as Traffic Manager.

Locomotive and Carriage Superintendent—Mr. E. B. Carroll (on leave from 11th February 1896 to 26th February 1896, during which period Mr. E. S. Luard acted as Locomotive and Carriage Superintendent).

Chief Storekeeper—Mr. S. A. Duigan (on leave from 3rd October 1895 to 21st December 1895, during which period Mr. G. R. Spencer acted as Chief Storekeeper).

Telegraph Superintendent (Surat)—Mr. J. Franklin.

Chief Medical Officer—Dr. A. H. Deane (on leave from 9th May 1895 to 9th June 1895, when Mr. Burjorji, Medical Attendant, was in charge of the office).

Assistant Superintendent of Police—Mr. Lambert till 11th June; Mr. R. M. Phillips from the 12th June.

Ajmere.

Engineer-in-Chief—Mr. W. Harvey.

Traffic Superintendent—Mr. J. Conder.

Locomotive Superintendent—Mr. F. N. Gütersloh (on furlough from 1st May 1895 to 19th December 1895, when Mr. J. Goodwin acted).

Carriage and Wagon Superintendent—Mr. J. J. Adler (on leave from 3rd May 1895 to 3rd August 1896, when Mr. A. T. Houldcroft acted).

Deputy Storekeeper—Mr. G. R. Spencer on leave from 7th June 1895 to 7th September 1895, when Mr. R. Goode acted).

Medical Officer (Bandikui)—Dr. W. Crofts.

Assistant Inspector-General of Police, B. B. and C. I. and R. M. Railways—Mr. R. E. Acklom.

SOUTHERN MAHRATTA RAILWAY COMPANY.

Dhárwár.

Agent—Major J. Burn-Murdoch, R. E.

Chief Engineer—Mr. Peter Scott (on leave from 1st April to 18th June 1895, during which period Mr. A. R. Anderson acted as Chief Engineer).

Auditor—Mr. J. Partridge.

Traffic Manager—Mr. A. Muirhead (on leave from 6th May 1895 to 7th August 1895).

Mr. T. McCloughin, acting, from 6th May 1895 to 7th August 1895.

Locomotive Superintendent (Hubli)—Mr. C. P. Whitcombe (on furlough from 10th December 1895).

Mr. G. W. Lindsley, acting, from 10th December 1895.

Storekeeper (Hubli)—Mr. H. Weir, till March 1896. Arrangements are being made to appoint a successor to Mr. Weir.

Medical Officer (Hubli)—Dr. E. S. Chenai.

Superintendent of Police—Mr. H. J. Duggan, till the 26th February 1896 (on leave from 1st April to 16th May 1895, during which period Mr. Henderson was in superintendence).

Mr. F. H. Warden, from the 26th February 1896.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY.

Ghadechi.

Manager and Engineer-in-Chief.—Mr. W. H. White (on leave from the 12th June to 28th September 1895).

Mr. H. C. Knox, acting, from the 12th June to the 28th September 1895.

Examiner of Accounts—Mr. W. C. Hickie.

Traffic Superintendent—Mr. C. Carroll (on leave for six weeks from the 23rd October 1895).

Mr. Tait acted during the absence of Mr. Carroll.

Locomotive and Carriage Superintendent—Mr. D. Wedderburn, continued to act as Locomotive Superintendent in place of Mr. R. Wylie, absent on sick leave. Mr. R. Wylie has since retired from the Service. Mr. Wedderburn was absent on leave from the 21st September 1895, during which period Mr. H. S. Davies, District Engineer, assumed charge of the Locomotive Superintendent's office, in addition to his own duties.

Medical Officer—Dr. N. F. Bunshaw.

MORVI RAILWAY.

Morvi.

Manager and Executive Engineer—Mr. W. H. White (on leave from the 12th June to 28th September 1895).

Resident Engineer and Traffic Superintendent—Mr. C. P. White.

Locomotive and Carriage Superintendent—Mr. M. B. Burke.

Auditor and Accountant—Mr. Hormusji Dinshaw.

BARSI LIGHT RAILWAY.

Bársi.

Agent and Resident Engineer—Mr. A. N. Alexander.

Schools.

The following tables give information in connection with the attendance at the various schools, and the receipts and expenses for the calendar year 1895 :—

Great Indian Peninsula Railway.

Local and District Schools.

Name and Location of School.	Attendance.				Annual Contributions.			Remarks.
	Children.		Apprentices and Workmen.					
	Number on the roll.	Average daily attendance.	Number on the roll.	Average daily attendance.	Railway Grant.	Average School Fees.	Total.	
					Rs.			
Church School, Jubbulpore	33	...	Nil	...	600	...	...	
Church School, Harda	40	...	...	...	600	...	...	
Bishop's School, Nágpur	Nil	...	...	...	250	...	...	
St. Francis de Sales' R. C. School, Nágpur	48	...	...	...	213	...	...	
St. Joseph's Convent Branch School, Nágpur	48	...	...	...	202½	...	..	

Railway Schools.

Name and Location of School.	Attendance.				Annual Contributions.				Annual Expenditure.	Remarks.
	Children.		Apprentices and Workmen.							
	Number on the roll.	Average daily attendance.	Number on the roll.	Average daily attendance.	Government Grant.	Railway Grant.	Average School Fees.	Total.		
							Rs. a. p.	Rs. a. p.	Rs. a. p.	Average monthly fees— Rs. a. p.
G. I. P. Railway School, Párel	16	14	..	..	Nil.	482 11 0	*139 0 0	621 11 0	482 11 0	*12 10 2
G. I. P. Railway School, Igátpuri	53	46	..	..	1,153 0 0	3,276 6 6	*562 15 7	4,992 6 1	3,438 6 6	*56 4 9
G. I. P. Railway School, Bhusáwal	57	41	..	..	410 0 0	2,949 1 2	*516 14 0	3,875 15 2	3,219 1 2	*46 15 10
Joint Railway School, Khandwá	89	81	..	..	760 0 0	1,965 0 0	*403 11 0 †709 12 4	3,838 7 4	2,065 0 0	*83 10 8
							1,113 7 4			
G. I. P. Railway School, Lonavla	68	59	..	..	874 0 0	2,936 14 6	*826 3 6	4,637 2 0	3,402 14 6	*32 9 11
G. I. P. Railway School, Sholápur	52	42	..	..	332 0 0	1,559 11 2	*331 13 6	2,223 8 8	1,619 11 2	*36 13
G. I. P. Railway School, Sháhábád...	22	15	..	..	235 15 0	914 6 5	*214 11 5	1,365 0 10	1,082 6 5	*19 8 4

N.B.—* The fees paid by G. I. P. Railway Men and Non-Railway Residents ... ... Rs. a. p. 403 11 0
† Rajputána Málwa Railway's proportion of expenses for the year 1895 ... ... 709 12 4
Total ... 1,113 7 4

B. B. & C. I. Railway.

Local and District Schools.

Name and Location of School.	Attendance. Children. Number on the Roll on 31st December 1895.	Attendance. Children. Average daily attendance.	Attendance. Apprentices and Workmen. Number on the Roll on 31st December 1895.	Attendance. Apprentices and Workmen. Average daily attendance.	Annual Contribution. Railway grants including Boarding.	Annual Contribution. School fees including Boarding.	Annual Contribution. Total.	Remarks.
					Rs.	Rs.	Rs.	
Bombay Education Society's School, Byculla	4	4·00			720	780	1,500	
Convent Boarding School, Parel	5	4·80			132	420	552	
Lawrence M. Asylum, Murree	1	1·00			105	115	220	
Taylor High School, Poona	1	1·00			162	286	448	
St. Peter's Boys' School, Mázagaon	1	1·17			201	204	405	
Boys and Girls' High School, Oak Openings Wellesley, Náini Tál	2	1·25			112	361	473	
Cathedral Boys' High School, Fort	3	2·67			170	365	535	
Cathedral Girls' High School, Fort	2	1·67	Nil.		201	388	589	
Convent High School, Fort	1	1·00			36	36	72	
St. Xavier's High School, Esplanade	2	2·00			42	42	84	
Antonio D'Silva's Anglo P. School, Dádar	1	0·50			5	7	12	For 6 months only.
Convent Girls' School, Lower Máhim	2	2·50			60	60	120	
St. Joseph's Convent School, Bandora	1	1·00			120	120	240	
Bishop's High School, Poona	1	0·92			149	155	304	
St. Mary's School, Poona	2	2·00			300	405	705	
St. Mary's College, Mázagaon	2	1·67			220	239	459	
Victoria Jubilee Technical Institute, Byculla	1	1·00			18	23	41	
John Cannon High School, Fort	4	3·67			60	61	121	
Girls' High School, Girgaum	4	2·83			56	71	127	
Boys' Diocesan High School, Naini Tál	1	0·46			69	69	138	
Anglo Indian School Baroda	3	3·00			126	...	126	
Total	...	...	...	...	3,064	4,207	7,271	

Railway Schools.

Name and Location of School.	Attendance. Children. Number on the Roll.	Attendance. Children. Average daily attendance.	Attendance. Apprentices. Number on the Roll.	Attendance. Apprentices. Average daily attendance.	Annual Contribution. Government grant.	Annual Contribution. Railway grant.	Annual Contribution. School fees.	Annual Contribution. Total.	Annual Expenditure.	Remarks.
					Rs.	Rs.	Rs.	Rs.	Rs. a. p.	
Parel Railway School	50·22	43·77	...	...	879	2,376	1,777	5,032	2,623 7 0	
Bulsar do.	13·36	10·68	...	...	...	...	157	157	306 1 0	The excess expenditure was met from the School Funds.
Ahmedabad do.	57·72	58·03	...	...	582	1,200	725	2,507	2,624 0 0	Do. do.

Rajputana-Málwa Railway.

Local and District Schools.

Name and Location of School.	Attendance. Children. Number on the Roll.	Attendance. Children. Average daily attendance.	Attendance. Apprentices and workmen. Number on the Roll.	Attendance. Apprentices and workmen. Average daily attendance.	Annual Contribution. School fees.	Annual Contribution. Railway Grant.	Annual Contribution. Total.	Remarks.
Anglo-Vernacular School, A'bu Road	118·37	101·77	...	...	624 1 0	616 14 0	1,240 15 0	
Bengalee School, Ajmere	9·57	6·65	...	...	72 2 0	72 2 0	144 4 0	
Deccan do. do.	17·58	17·55	...	...	130 0 0	130 0 0	260 0 0	
Pársi do. do.	11·00	11·06	...	...	420 0 0	85 0 0	505 0 0	
Dyanand Ashram Anglo Vedic School, Ajmere.	134·33	136·78	...	...	600 0 0	611 15 0	1,211 15 0	The Railway grant to this School was made from the Fine Fund.
Anglo-Vernacular School, Bandikui	84·90	70·70	...	...	558 12 0	204 3 0	762 15 0	
Edulji Pestonji School, Mhow	60·75	51·64	...	...	472 12 0	472 12 0	945 8 0	
Nuns' Boarding and Day School, Mhow	38·00	37·99	...	...	180 0 0	538 0 0	718 0 0	
Mission Day School, Dehli	8·63	8·46	...	...	130 0 0	97 3 6	227 3 6	

Railway Schools.

Name and Location of School.	Attendance. Children. Number on the Rolls.	Attendance. Children. Average daily Attendance.	Attendance. Apprentices. Number on the Rolls.	Attendance. Apprentices. Average daily Attendance.	Annual Contributions. Government Grant.	Annual Contributions. Railway Grant.	Annual Contributions. School-fees.	Annual Contributions. Total.	Annual Expenditure.	Remarks.
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Railway School, Mount Abu ...	85·9	85·9	...	...	...	13,518 10 0	8,846 1 3	22,364 11 3	23,944 5 3	The excess expenditure was met partly from fees of children of non-Railway employés and partly from recoveries from other sources.
Do. Abu Road ...	23·00	23·40	...	...	...	460 13 9	500 8 0	961 5 9	961 5 9	
Do. Ajmere	80·66	64·78	...	...	1,200 0 0	450 0 0	1,601 0 0	3,251 0 0	3,516 0 0	The excess was met from the balance in hand.
Railway Night School, Ajmere ...	...	...	36·08	36·12	...	876 0 0	.....	876 0 0	842 0 9	
Railway School, Neemuch ...	18·20	12·90	...	...	360 0 0	629 9 9	369 5 3	1,358 15 0	1,329 7 0	
Joint Railway School, Khandwa.	18·68	19·17	...	...	...	709 12 4	138 0 0	847 12 4	847 12 4	
Railway School, Bandikui ...	37·00	29·68	...	...	1,200 0 0	.....	843 8 0	2,043 8 0	1,996 9 6	
Do. Sirsa	22·00	17·35	...	...	615 15 0	238 8 2	569 5 7	1,423 12 9	1,423 12 9	
Do. Kasganj ...	9·58	6·51	...	...	...	252 0 0	192 8 0	444 8 0	482 10 9	Do. do.

Southern Mahratta Railway System.

Railway Schools.

Name and Location of School.	Attendance. Children. Number on the Rolls.	Attendance. Children. Average daily Attendance.	Attendance. Apprentices and Workmen. Number on the Rolls.	Attendance. Apprentices and Workmen. Average daily Attendance.	Annual Contributions. Government Grant.	Annual Contributions. Railway Grant.	Annual Contributions. Average School-fees.	Annual Contributions. Total.	Annual Expenditure.	Remarks.
					Rs.	Rs.	Rs.	Rs.	Rs.	
Southern Mahratta Railway.										
Hubli Railway School	26	18	...	...	227	600	229	1,056	1,211	
Dharwar Railway School	30	22	...	...	279	720	230	1,229	1,260	
Guntakal Railway School... ...	22	17	...	...	...	90	36	126	126	This school was opened only in October last and the figures entered under "Annual contributions" and "Annual expenditure" represent the amounts for 3 months.
Mysore State Railway.										
Arsikeri Railway School	29	20	...	...	...	359	134	493	460	
Bangalore Railway School	35	16	...	...	...	480	117	597	530	

Bhavnagar-Gondal-Junagad-Porbandar Railway

Railway Schools.

Name and Locality of the School.	Attendance. Children. Number on the Rolls.	Attendance. Children. Average daily attendance.	Attendance. Apprentice and workmen. Number on the Rolls.	Attendance. Apprentice and workmen. Average daily attendance.	Annual Contribution. Government Grant.	Annual Contribution. Railway Grant.	Annual Contribution. Average School-fee.	Annual Contribution. Total.	Annual Expenditure.	Outstanding to School.
					Rs.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
B. G. J. P. Railway (including J. R. Railway) School at Jetalsar.	23 in January 1895 ... 22 ,, February ,, ... 22 ,, March ,, ... 22 ,, April ,, ... Vacation May ... 17 in June 1895 ... 17 ,, July ,, ... 19 ,, August ,, ... 20 ,, September ,, ... 22 ,, October ,, ... 23 ,, November ,, ... 23 ,, December ,, ...	20·90	Nil ...	Nil ...	203	810	589 9 9	1,602 9 9	1,729 7 0	126 13 3

Volunteers.

For the official year ending 31st March 1896.

The following statement shows the enrolled strength and the number of efficients in each Railway Volunteer Corps on the 31st March 1896 :—

Corps.	Enrolled Strength.	Efficient.				Non-efficients.	Sergeant Instructors, 1st and 2nd Class.	Drill Instructors.	Head-quarters.
		Officers.	Non-Commissioned Officers.	Volunteers.	Total.				
G. I. P. Railway Volunteer Rifle Corps	1,047	30	130	885	1,045	2	9	2	Bombay.
B. B. & C. I. Railway Volunteer Rifle Corps, 1st Battalion ...	580	23	71	464	528	22	5	1	Do.
Do. do. Reserves...	29	1	1	24	26	3	...	...	Do.
F. Company 1st Battalion, (B.-G.-J.-P. Railway) ...	71	3	6	61	70	1	one 1st class.	Nil.	Ghadechi.
(Morvi Railway)	3	Nil.	Nil.	3	3	+	1st class.	Nil.	Do.
Second Battalion, (R. M Railway)...	980	34	114	828	976	4	10	Nil.	Ajmere.
Southern Mahratta Railway Volunteer Rifle Corps ..	725	16	66	629	711	14	4 First class and one 2nd class.	Nil.	Hubli.

+ One reservant of E. Company.

Fuel Consumption.

(For the calendar year ending 31st December 1895).

G. I. P. Railway System—(*Standard Gauge*).

On the Konkan District (Bombay to Karjat and Bombay to Kasara).	(*a*) English, Narbada, Umaria large, Umaria nut, Singareni unscreened, (*b*) Patent fuel, (*c*) Bengal sea-borne.
On the Bhore Ghat (Karjat to Lonavla)...	English, Singareni unscreened.
On the Thull Ghat (Kasara to Igatpuri)...	English, Umaria large coal.
On the South-East Line (Lonavla to Raichur).	(*d*) Singareni unscreened, English.
On the Dhond and Manmad Section ...	Singareni unscreened, Umaria large, Umaria nut, and Warora.
On the North-East Line (Igatpuri to Nandgaon).	English, (*e*) Umaria large, Umaria nut, (*f*) Narbada and Warora.
On the North-East Line (Nandgaon to Bhusawal).	English, (*g*) Warora, Narbada, Umaria large and Umaria nut.
On the North-East Line (Bhusawal to Khandwa).	Umaria large, Narbada, Warora, English, Umaria nut and (*h*) Bengal-Nagpur Coal Company's.
On the North-East Line (Khandwa to Jubbulpore).	Umaria large, Umaria nut, Narbada and English.
On the section Bhusawal to Nagpur ...	Bengal-Nagpur Coal Company's, Warora, Umaria large and Umaria nut.
On the section Wardha to Warora ...	Warora Coal.
On the Khamgaon Section	Bengal-Nagpur Coal Company's and Warora Coal.
On the Amraoti Section	Bengal-Nagpur Coal Company's, Umaria large and Umaria nut.

(*a*) Delivered into boats in Bombay from Rs. 16-8-0 to Rs. 17-0-0; (*b*) from Rs. 17-0-0 to Rs. 17-8-0 and (*c*) from Rs. 12-8-0 to Rs. 14-8-0 per ton.

(*d*) Delivered into wagons at Yellandu on N. G. S. Railway, at Rs. 4-8-0 per ton.

(*e*) Delivered into wagons at Umaria, large at Rs. 4-0-0 and nut at Rs. 2-2-0 per ton; (*f*) delivered into wagons at Mohpani at Rs. 6-0-0 per ton.

(*g*) Delivered into wagons at Pit's mouth at Rs. 4-8-0 per ton.

(*h*) Delivered into wagons at Pit's mouth at Rs. 3-0-0 per ton.

B. B. & C. I. Railway—(*Standard Gauge*).

Statement showing the total consumption of various descriptions of coals on the B. B. and C. I., Gaekwar's Petlad and the Godhra-Rutlam Railways during the year ended 31st December 1895.

Description of Coal.	Quantity consumed in Tons.	Average price per ton at place of delivery.	Remarks.
		Rs. a. p.	
English Coals—			
Powell's Duffryn steam coal ...	2,238	18 8 0	
Nixon's Navigation do. ...	5,841	18 6 0	
Ferndale do. ...	14,404	18 4 11	
Davison's West Hartley do. ...	875	19 14 0	
Great Western Navigation steam coal ...	199	18 2 6	
Standard Merthyr do. ...	2,000	18 10 0	
Austraian Wallarah do. ...	478	15 9 0	
Patent Fuel	23	18 6 0	
Country Coals—			
Salanpore steam coal	37,241	14 12 9	
Jherria do.	177	15 14 0	
Singareni do.	13,964	14 6 8	
Giridih Smithy coal	94	15 0 6	
Insoles Low-main No. 3 Small Rhondda Smithy coal	1,208	14 8 0	
North's Navigation washed coke ...	730	18 1 5	
Gas coke	79	20 0 0	
Total Tons ...	79,551	.....	

The various classes of coal shown above were used without distinction over all sections of the line.

Gaekwar's Dabhoi Railway—(*2′ 6″ Gauge*).

Statement showing the total consumption of various descriptions of coals during the year ended 31st December 1895.

Description of Coal.	Quantity consumed in Tons.	Average price per ton at place of delivery.	Remarks.
		Rs. a. p.	
English Coals—			
Powell's Duffryn steam coal ...	112	18 8 0	
Ferndale do. ...	180	18 4 11	
Nixon's Navigation do. ...	68	18 6 0	
Country Coals—			
Salanpore steam coal	177	14 12 9	
Singareni do.	230	14 6 8	
Total Tons ...	767	.....	

RA'JPUTANA-MA'LWA RAILWAY SYSTEM—(*Metre Gauge*).

Indian coal was used over the whole line, and was distributed thus. Kurhurballi and Borrea coal and Gorungdi Steam coal over the whole line and Singareni coal between Ajmere, Neemuch, Sojat and Ferozepore. English coal was used between Ajmere, Sabarmati and Khandwa. Australian coal was used as a trial between Sabarmati and Abu. Firewood and unserviceable sleepers were issued over the whole line for lighting up engines.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre Gauge*).

The description of fuel used during the year on the several sections of the Southern Mahratta Railway (including Mysore and Kolhapur State Railways) is shown below :—

Name of Section.	Between Stations.		Description of Fuel.
Poona Branch	Poona ...	Miraj ...	Singareni Unscreened Coal.
Do.	Miraj ..	Londa ...	Firewood.
Kolhapur State Railway	Do. ...	Kolhapur ...	Do.
Main Line	Castle Rock .	Gadag ...	Do.
Harihar Branch	Hubli ...	Harihar ...	Do.
Mysore State Railway	Harihar ..	Nanjangud...	Singareni Unscreened Coal.
Main Line	Gadag ...	Bezwada ...	
Guntakal-Hindupur	Guntakal ...	Mysore Frontier (Hindupur).	
Bijapur Branch	Gadag ...	Hotgi ...	

The fuel supplied under all the contracts has been of good quality and arrangements for delivery were satisfactory. The use of unscreened coal was extended to Poona-Miraj Section in the early part of the year, owing to firewood supplied from the Kanara Forests having proved expensive.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

(Including Jetalsar-Rajkot Section.)

The coal used during the year was chiefly Cardiff (Powell's Duffryn) for locomotive purposes and West Hartley for workshop purposes, purchased at the rate of Rs. 21-15-0 and Rs. 20-15-0 respectively. Also about 100 tons of Singareni and 300 tons of Dutton's coals were obtained for trial; the latter was purchased at Rs. 20-11-0 per ton, while the former was supplied free at Wadhwan Junction, the carriage alone having been paid by the Railway up to that point.

On trial the Singareni and Dutton's coals were not found to be satisfactory.

MORVI RAILWAY— (2′ 6″ *Gauge*).

The coal used during the year was Cardiff coal and this is found to be the best for the small locomotives of this line.

Railway Police.

For the calendar year ending 31st December 1895.

G. I. P. RAILWAY SYSTEM WITHIN THE BOMBAY PRESIDENCY.

The office of Police Superintendent was held by Mr. Scannell from the 1st January to the 24th May, and since then by Mr. Henderson.

In the report for the previous year, a steady decrease in "real crime" under Indian Penal Code as compared with the preceding two years was noticed.

In the year under report there was an increase of 116 cases in real crime under "all classes", the figures being 435 in 1895 as against 319 in 1894. Under Indian Penal Code, the number for the year under report was 361 as against 249. It is considered that this increase must be put down partly to the stringent orders issued by the Superintendent with regard to registration and partly to mere fluctuation. The increase is chiefly noticeable under thefts. Of serious crimes, there were no cases of murder or attempts at murder or culpable homicide as against one case of attempt at murder in the year 1894. Five cases of dacoity were reported during the year of which two were excluded as false. Of the three remaining true cases, one was classed as undetected and two remained pending, while in 1894 there was no case of dacoity. Of three cases of robbery reported during the year, 2 were decided to be false and one remained undetected. In the preceding year there were four reported cases. Including three cases of the previous year, there were 16 cases of house-breaking with intent to commit theft for disposal as against 14. Seven of these were excluded, 7 remained undetected, one ended in conviction and one remained pending at the close of the year. Reported theft cases rose from 266 to 415 and the number for disposal, including 15 from the previous year, was 430. Of these, 93 were excluded, 148 were classed as not brought to trial, 112 ended in conviction and 9 in acquittal, and 68 remained pending. There were 5 real cases of receiving stolen property for disposal as against 12. Of these, 3 ended in conviction.

Pending cases increased in number from 23 to 79 due partly to the increase in cases, and partly to the fact that more cases were reported in November and December than in any other corresponding period of the year. Of the 79 cases, 28 were with the Magistracy and 51 under investigation by the Police. The number of undetected cases under "all classes" increased from 139 to 167, of which no less than 155 come under the headings of house-breaking and theft; 44 per cent. of cases remained undetected as against 42 per cent. in 1894, a falling off in detection and a general result which is not considered satisfactory.

Out of 583 cases for disposal under "all classes" 132 were excluded as against 98, out of 450 in the previous year. One case only was classed as maliciously false.

The total number of thefts was 326, of which 15 were pending at the end of 1894. 109 cases ended in conviction; in 8 cases the accused were discharged; 141 cases remained undetected and 68 cases were pending at the close of 1895. In all, 286 persons were arrested under "all classes"; of these, 15 were released without a trial or a percentage of 7·2 as against 12 in the previous year. 181 persons were disposed of by trial and 132 were convicted, the percentages being 67 and 72 as against 56 and 65 in the previous year.

The total amount of property reported as stolen during the year was Rs. 17,593 or a decrease of Rs. 6,492 over the previous year, while the total amount to be accounted for was Rs. 19,245 as against Rs. 25,678. Recoveries amounted to Rs. 3,845 showing a percentage of but 19 as against 39 in the previous year. No satisfactory explanation is forthcoming as regards these poor results. The number of cases in which property was stolen was 355, recoveries being made in 159 or 44·78 per cent. as against 52 in 1894. Property to the value of Rs. 2,305 stolen in other districts was recovered by the G. I. P. Railway Police during the year.

The total number of non-cognizable crimes reported during the year remained stationary, *viz.* 57; in 1893, the number was 28. In 13 of the 57 cases the Police were employed to make enquiries. In all 70 persons were actually brought before Magistrates as against 74 in the previous year, of which number 4 were discharged after appearance, 14 acquitted, and 52 convicted, The percentage of convictions has also remained stationary, *viz.* 74.

The strength of the force remained the same as in 1894, *viz.* 606 men. The total cost was slightly less than in 1894, being Rs. 1,34,117 as against Rs. 1,38,052 in the previous year. The decrease was due to a certain extent to the Superintendent of a lower grade than in 1894 being in charge of the line for the greater portion of the year under report. The length of line supervised remained unchanged at 772 miles.

B. B. & C. I. AND RAJPUTANA-MALWA RAILWAYS.

The Police on the B. B. & C. I. and Rajputana-Malwa Railways were amalgamated into one administration in 1894, and placed under the Assistant Inspector General of Police, B. B. & C. I. and Rajputana-Malwa Railways. The report for the year under report is on the entire system.

Mr. Acklom was the Assistant Inspector General throughout the year. The office of Assistant Superintendent of Police, B. B. & C. I. Railway, was held by Mr. Lambert from 1st January to 11th June 1895 and by Mr. Phillips from 12th June to the close of the year, while that of the Assistant Superintendent of Police, Rajputana-Malwa Railway, Bandikui, was held by Mr. Tregear from 1st January to 7th May 1895 and again from 8th July to 31st December 1895, Rai Bahadur Kishorilal acting for him in the intervening period. Mr. Dubois was Assistant Superintendent of Police, Rajputana-Malwa Railway, Indore, from 1st January to 15th December, and from 16th December to the close of the year Rai Bahadur Kishorilal acted for him.

During the year 1,349 cases were reported as against 1,315 in the previous year. Crime on the Rajputana-Malwa Railway decreased from 1,038 cases in 1894 to 889 cases in 1895; the decrease was principally under the heads of house-breaking, criminal trespass and opium-smuggling which, under the first two heads may be the result of restored agricultural prosperity; it is, however, not accompanied by a corresponding decrease in the number of thefts.

Crime on the B. B. & C. I. Railway increased from 277 cases in 1894 to 460 cases in 1895. This increase is partly due to more correct registration and partly to the opening for traffic of the Godhra-Rutlam Railway. The increase is under the heads of "thefts" and "cognate offences."

Including pending cases from the previous year, the number for disposal on the whole system was 1,390 as against 1,361. 112 cases were excluded, leaving 1,278 real cases for disposal. Of these 1,278, 65 remained pending at the close of the year and of the balance which were disposed of, 541 were classed as undetected and 672 were brought to trial and 587 ended in conviction. Under Indian Penal Code alone, the number of reported crime was 1,148 and of real crime 1,051 as against 1,042 and 967, respectively, of the previous year. Of the 1,030 real cases disposed of during the year, 527 cases remained undetected, and of the 503 cases which were brought to trial, 431 ended in conviction. The number of pending cases at the close of the year was 52.

Of serious crimes, there were 3 true cases of murder, as against 1 in the year before; one of attempted murder and culpable homicide as against none; 4 of dacoity as against 1, and 8 of robbery as against 1. One of the 4 dacoities was committed by a party of discontented subjects of the Serohi State, apparently with the intention of drawing the attention of Government to their grievances. The case was a technical one. They fired guns, broke signal glasses and took a rupee and a silver ring from a pointsman. Of the 8 robberies, 4 were committed by Bhils on the Godhra-Rutlam section. Cases of house-breaking decreased from 87 to 67 while thefts increased from 737 to 857; there was a decrease of 14 cases under "receiving stolen property." One case of administering stupefying drugs in sweetmeats at a Railway station was reported; a reward was offered for the arrest of the accused but without a satisfactory result.

Of the 112 excluded cases referred to, 6 were maliciously false, 96 false owing to mistake of fact or law, and 10 non-cognizable. In 4 of the 6 maliciously false cases convictions were obtained. Of the 541 undetected cases, 527 were under Indian Penal Code and it is noted that whereas undetected cases under house-breaking have decreased from 81 to 59, under thefts they have increased from 368 to 447, but in each case they are proportionate to fluctuation in the offences specified.

Dealing with persons, 705 were arrested under Indian Penal Code by the Police *suo motu* as against 653 in the year before. Including 30 persons pending from that year, the number for disposal was 735, of whom 30 were released without being brought to trial, or a percentage of 4·08. 680 persons were brought to trial and 527 convicted. These results are practically the same as those of the previous year, the percentages being 74 and 77 as against 76 and 78.

The amount of property stolen during the year under report was Rs. 47,493 as against Rs. 45,906. Including property stolen in pending cases, the total amount to be accounted for was Rs. 49,118 as against Rs. 48,036 in the previous year. Property worth Rs. 21,475 was recovered, giving a percentage of 43·72 as against 39·27. The total number of cases in which property was stolen was 1,019 as against 919 in the previous year. Property was recovered in 471 cases against 591 in the year before.

Forty-seven persons with stolen property to the value of Rs. 5,049 belonging to foreign jurisdictions were arrested by the Railway Police and transferred to their respective jurisdictions.

The number of non-cognizable crime was 226 during the year as against 191 in 1894. In 150 cases, the Police were employed to make enquiries as against 130 in the previous year. 301 persons were brought before Magistrates, of whom 257 were convicted, 5 acquitted, 35 discharged after appearance, and 4 were awaiting trial at the close of the year. The percentage of persons convicted to persons brought to trial was 85 as compared with 72 in the previous year.

There were 4 cases of dacoity reported during the year and 1 case in the previous two years. In these 5 cases, 46 persons were supposed to be concerned, of whom 4 were arrested and brought to trial, but all 4 were acquitted; the remaining 42 are still at large. There were 3 cases of kidnapping and 8 of cattle theft, and 15 more of the latter class of crime were committed in the previous two years. In the three cases of kidnapping, 4 persons were arrested and convicted, and in the 23 cases of cattle thieving, 35 persons were concerned, of whom 3 were arrested, 1 convicted, 1 acquitted, and 1 remained pending, while the remaining 32 are still at large. In connection with the above crimes property worth Rs. 632 was stolen and Rs. 208 recovered.

The total force of the whole system consisted of 1,151 officers and men in 1895 as against 1,144 officers and men in 1894, giving a net increase of 7 men due to the abolition of 7 officers and 43 men of the Godhra-Rutlam Railway construction works and to the addition of 6 officers and 34 men sanctioned for the Rajputana-Malwa Railway Police and 1 officer and 16 men for the B. B. & C. I. Railway Police. The total length of line supervised during the year was 2,102 miles and the total cost of the force was Rs. 2,22,245.

SOUTHERN MAHRATTA RAILWAY SYSTEM WITHIN THE BOMBAY PRESIDENCY.

With the exception of a period from the 16th March to the 16th May during which Mr. Henderson was in superintendence, the charge of the Railway Police was held by Mr. Duggan throughout the year.

There were 265 cases in all reported during the year as against 211 in the previous twelve months, or an increase of 54 cases. In real cognizable cases, after eliminating those excluded, there is an increase of 36 under the Penal Code and a decrease of 5 under "Other offences." This increase is partly due to the large increase in traffic during the latter half of the year owing to breaks on the G. I. P. Railway which necessitated the transmission of goods and passengers to the Southern Mahratta Railway, and partly to ordinary fluctuations in crime. Cases pending at the close of the year amounted to 9 as against 6 in the year before, 3 being at the close of the official year still under investigation by the Police and 6 before Magistrates.

The total number of cases for disposal amounted to 271 or 44 in excess of the previous year. Of these 271 cases, 97 were excluded, comprising 2 non-cognizable, 2 under Section 95 of the Indian Penal Code, 4 as maliciously false, 88 as false owing to mistake of fact or law, and 1 compounded. 52 of the 97 were complaints by Company's employés. In none of the 4 maliciously false cases were proceedings instituted, as it was considered that the evidence obtainable was insufficient to warrant a prosecution. With regard to more serious crimes, the one case of murder reported was afterwards found to have been actually committed within the jurisdiction of the District Police and the case was accordingly transferred to the register of the latter, the Railway Police rendering all possible

assistance in the investigation. Of dacoity four cases were reported, one being afterwards excluded as being false but not maliciously so, one which was committed among the gang-huts is supposed to have been committed by Berads, and the case is still under investigation. In a second case, a Station Master was beaten and property to the value of about Rs. 459 was carried away. A man was suspected but as the evidence of identification was unreliable, and no property was found with him, the Superintendent ordered the man to be released on bail and the case reported to the Magistrate. In the third case a Mahár was suspected of instigating the offence to satisfy personal ill-feeling; as though property to the value of Rs. 53 was carried away, it seemed clear from the fact that an assault was made again on the subsequent night, that annoyance and not robbery was the main object in view. Every enquiry was made but without success, identification being rendered impossible by the assailants having smeared their faces with ashes.

The only one case of robbery reported during the year was excluded as "false." Against 9 cases of house-breaking in 1894, there were 8 in the year under report, of which 5 were excluded and the remaining 3 remained undetected, while the one case pending from the previous year was decided to be false. There were 153 thefts reported during the year against 113 in 1894, an increase of 40; but deducting excluded cases, the number of real thefts during the year was 91 as against 65, or an increase of 26.

There were 13 cases of receiving stolen property reported as against 2 in the previous year, and of these 13 cases 3 were excluded and the remaining 10 ended in conviction. The increase in cases under this head is considered to be due to greater vigilance on the part of the Police.

There were in all 109 real cognizable cases disposed of under the Penal Code, of which 71 cases or 65 per cent. ended in conviction, showing a falling off of nearly 11 per cent. Of the 72 real cognizable cases decided by trial, 71 cases or nearly 99 per cent. ended in conviction as against 100 per cent. in the previous year. There were 111 persons arrested in all in Indian Penal Code cases, of whom 2 remained under trial at the close of the year and of the remaining 109, 85 persons or 78 per cent. were convicted against 82 per cent. in the year previous. The percentage of persons convicted to those disposed of by trial was 79 as against 82 the year before.

The total value of property stolen, including Rs. 341-1-5 from the previous year, amounted to Rs. 4,375-11-4, which shows a decrease of Rs. 4,146-14-3 over the year before. The percentage of property recovered to that stolen amounted to 61 as against 86 in the previous year, or a falling off of 25 per cent. The higher percentage in the previous year was, however, due to a case in which over Rs. 6,000 was stolen, almost all of which was recovered.

The number of non-cognizable crimes has again fallen from 64 to 23, the decrease being chiefly under the Railway Act from 50 to 16. Of the 23 cases, in only 2 were the Police employed to make enquiries as against 4 such instances in the previous year. In connection with these 23 cases, 33 persons were brought before Magistrates as against 70 in the previous year. Of these, 20 were convicted, 4 acquitted and 9 discharged after appearance, or a percentage of 60 as against 85 in the year before.

The length of line supervised during the year was the same as in 1894, *viz.* 722 miles with 92 stations. One additional Head Constable, Second Class, and 2 Constables were sanctioned during the year, bringing the total of the force to 307. The total cost of the entire force during the year was Rs. 64,565 against Rs. 64,701 in 1894.

Bha'vnagar-Gondal-Juna'gad-Porbandar Railway (includes the Jetalsar-Rajkot Railway).

Particulars of the average strength and cost of the Railway Police are as follows:—

Subordinate Officers	20
Constables and men	63
Total	83

The total expenditure incurred by the Railway during the calendar year was Rs. 19,950, or Rs. 52·50 per mean mile.

During the year 67 cognizable cases of crime were reported to the Police, as compared with 79 cases in the previous year. Of the cases of 1895, 9 were excluded by order of the Magistrate as not being offences. Of the remaining 58 cases, 41 were sent up for trial, which resulted in 26 cases ending in conviction, 9 in acquittal or discharge, and 6 are pending decision in the Courts.

The percentage of cases ending in conviction to cases sent up for trial receded from 76 in 1894 to 63 in the year under report.

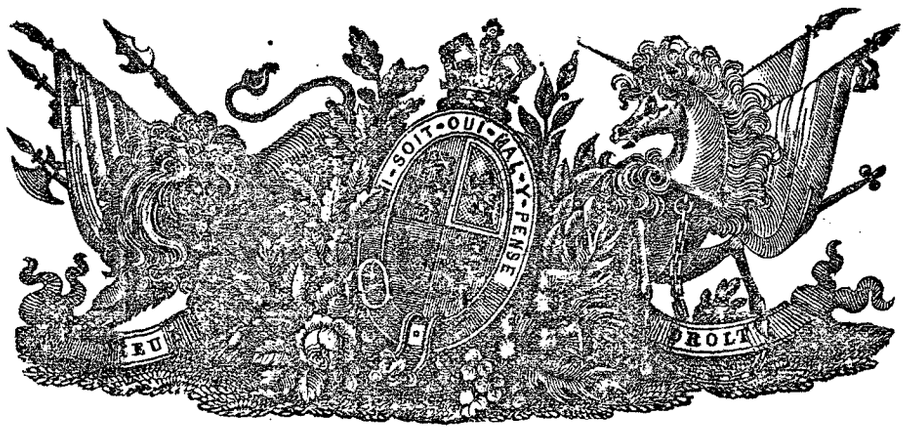
The total amount of property stolen during the year was Rs. 3,260-12-4, of which property valued at Rs. 1,823-4-7 or 55 per cent. was recovered.

There was no case of thuggee or dacoity during the year.

H. O. SELBY,
Consulting Engineer for Railways.

Bombay, 6th August 1896.

BOMBAY: PRINTED AT THE GOVERNMENT CENTRAL PRESS.



ADMINISTRATION REPORT

OF THE

RAILWAY DEPARTMENT,

BOMBAY,

FOR THE YEAR

1896-97.

LIB... OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC S...

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.

1897.

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ADMINISTRATION REPORT

OF THE

RAILWAYS UNDER THE GOVERNMENT OF BOMBAY

FOR THE YEAR 1896-97.

The following tables give the lengths of the several lines of Railway under the control of the Government of Bombay during the year 1896-97. The Hyderabad-Umarkot Railway, a length of 59 miles, constructed by the Bombay Government as a provincial line, is excluded from the tables as it is worked by the North-Western Railway and is directly under the control of the Director-General of Railways. Table I shows the lines grouped according to gauge, and Table II according to classification :—

TABLE I.

Gauge.	Railway.	Open for Traffic for any part of the year.	Under construction.	Surveyed or under Survey.	Classification.
		Miles.	Miles.	Miles.	
5' 6"	Great Indian Peninsula Railway.	1,287·93	...	...	Guaranteed.
	Dhond and Manmad Railway .	145·44	...	...	State Imperial, worked by Company.
	Khamgaon Railway	7·55	...	...	Native State, worked by Company.
	Amraoti do.	5·44	...	...	
	Wardha Coal do.	44·88	...	...	State Imperial, worked by Company.
	Bombay Baroda and Central India Railway	438·78	...	...	Guaranteed.
	Patri Railway	22·12	...	...	State Imperial, worked by Company.
	His Highness the Gaekwar's Petlad Railway	13·35	...	...	Native State, worked by Company.
	Godhra-Rutlam Railway ...	115·26	...	...	State Imperial, worked by Company.
	Rutlam-Nagda-Muttra Railway.	25·30	...	355·99	State Imperial.
	Nagda-Ujjain Railway ...	34·25	...	...	Native State, worked by Company.
	Muttra-Agra Railway... ...	...	...	31·81	State Imperial.
	Muttra-Aligarh Railway ...	...	...	36·95	Do.
	Tapti Valley Railway—				
	Surat *viâ* Nandurbar to Amalner.	...	162·47	...	Assisted Railway.
	Manmad *viâ* Amalner to Jalgaon.	...	...	110·14	Not definitely known.
	Baroda-Godhra Chord Line ...	...	...	44·00	Do.
	Chalisgaon-Dhulia Railway ...	...	...	37·31	Do.
	Total 5' 6" Gauge ...	2,140·30	162·47	616·20	
Metre ...	Southern Mahratta Railway (including Bellary-Kistna Railway)	†1,045·03	...	...	State Imperial, worked by Company.
	Mysore Railway	296·00	...	...	
	Mysore-Nanjangud Railway ...	15·25	0·50	...	Native State, worked by Company.
	Nanjangud-Gudalur Railway.	...	...	54·00	Native State.
	Guntakal-Mysore Frontier Railway.	119·50	...	...	State Imperial, worked by Company.
	Yeshvantpur-Mysore Frontier Railway.	51·35	...	...	Native State, worked by Company.
	Kolhapur Railway	29·07	...	...	Do. do.
	Kurnool—Road-Kurnool Railway	...	...	32·00	(Unclassified).
	Rajputana-Malwa Railway ...	1,122·43	...	...	State Imperial, worked by Company.
	Rewari-Ferozepore Railway ...	290·85	...	...	
	Cawnpore-Achnera Railway ...	260·65	...	...	
	Palanpur-Deesa Railway* ...	17·28	...	...	

* The Palanpur Darbar has contributed towards the cost. † Includes 2·99 miles of the East Coast Railway worked over.

TABLE I —*continued.*

Gauge.	Railway.	Open for Traffic for any part of the year.	Under construction.	Surveyed or under Survey.	Classification.
		Miles.	Miles.	Miles.	
Metre ...	Phalera-Rewari Railway ...	...	...	131·50	State Imperial.
	Sabarmati-Dholka Railway...	...	...	33 46	(Unclassified).
	Ahmedabad-Parantij Railway.	...	54·59	...	Assisted railway, to be worked by Company.
	Bhavnagar-Gondal-Junag a d-Porbandar Railway ...	333·46	...	...	Line owned and worked by Native State.
	Jetalsar-Rajkot Railway ...	46·23	...	...	Do.
	Jamnagar Railway	...	50·30	...	Do.
	His Highness the Maharana of Meywar's Oodeypore-Chitor Railway	60·31	...	...	Native State, temporarily worked by Company.
	His Highness the Maharana of Meywar's Mauli-Nathdwara Railway.	...	...	14·75	Native State.
	His Highness the Gaekwar's Mehsana Railway.	92·63	...	...	Native State, worked by Company.
	Do. Patan-Harij Railway.	...	...	23·00	Native State.
	Do. Kalol-Kadi Railway	...	...	12·20	Do.
	Do. Kalol-Vijapur Railway.	...	...	29·60	Do.
	Do. Patan-Siddhpur Railway	...	...	17·69	Do.
	Do. Siddhpur-Kheralu Railway	...	...	16·95	Do.
	Total Metre Gauge ...	3,780·04	105·39	365·15	
2' 6"	Morvi Railway	94·36	...	...	Line owned and worked by Native State.
	His Highness the Gaekwar's Dabhoi Railway	71·66	...	...	Native State, worked by Company.
	His Highness the Gaekwar's Vishwamitri-Padra Railway.	...	7·20	...	Native State, to be worked by Company.
	Do. Padra-Mobha Railway. ...	...	...	9·00	Native State.
	Do. Bahadarpur-Songir Railway ..	...	...	9·50	Do.
	Rajpipla State Railway ...	...	19·73	...	Do. to be worked by Company.
	Barsi Light Railway ...	21·75	...	...	Line owned and worked by a Company.
	Barsi-Pandharpur Railway ...	...	...	32·00	(Unclassified).
	Pandharpur-Sangola Railway...	...	...	20·00	(Unclassified).
	Total 2' 6" Gauge ...	187·77	26·93	70·50	
	Grand Total, all Gauges ...	6,108·11	294·79	1,051·85	

TABLE II.

Railway.	Gauge.	Open for Traffic.		Under Construction.		Surveyed or under Survey.	
		Miles.	Total.	Miles.	Total.	Miles.	Total.
Guaranteed—							
Great Indian Peninsula Railway ...	Standard .	1,287·93	...	...	...	...	...
Bombay, Baroda and Central India Railway	„ ...	438·78	...	...	...	...	...
			1,726 71		...		...
State Imperial, worked by Companies—							
Dhond and Manmad Railway ...	Standard .	145·44	...	...	...	...	...
Wardha Coal Railway	„ ...	44·88	...	...	...	...	...
Patri Railway	„ ...	22·12	...	...	...	...	...
Southern Mahratta Railway (including Bellary-Kistna Railway) ...	Metre ...	1,045·03	...	...	...	...	...
Mysore Railway	„ ...	296·00	...	...	...	...	...
Guntakal-Mysore Frontier Railway ...	„ ...	119·50	...	...	...	...	...
Rajputana-Malwa Railway ...	„ ...	1,122·43	...	...	...	...	...
Rewari-Ferozepore Railway ...	„ ...	290·85	...	...	...	...	...
Cawnpore-Achnera Railway ...	„ ...	260·65	...	...	..	...	...
Palanpur-Deesa Railway*	„ ...	17·28	...	...	...	...	...
Godhra-Rutlam Railway	Standard .	115·26	...	...	...	...	...
Rutlam-Nagda-Muttra Railway ...	„ ...	25·30	...	...	...	355·99	...
Muttra-Agra Railway	„ ...	...	...	...	....	31·81	...
Muttra-Aligarh Railway	„ ...	...	...	...	...	36·95	...
Phalera-Rewari Railway	Metre ...	...	...	...	...	131·50	...
			3,504·74		...		556·25
Lines owned and worked by Native States—							
Bhavnagar-Gondal-Junagad-Porbandar Railway	Metre ...	333·46	...	...	...	...	...
Petalsar-Rajkot Railway	„ ...	46·23	...	...	...	...	...
Rajkot-Jamnagar Railway... ...	„ ...	...	...	50 30	...	...	...
Morvi Railway	2′ 6″ ...	94·36	...	...	...	...	...
			474·05		50·30		...
Lines owned by Native States and worked by Companies—							
Khamgaon Railway	Standard .	7·55	...	...	...	...	...
Amraoti Railway	„ ...	5·44	...	...	...	...	...
His Highness the Gaekwar's Petlad Railway	„ ..	13·35	...	...	...	...	...
Nagda-Ujjain Railway	„ ...	34·25	...	...	...	...	...
His Highness the Gaekwar's Mehsana Railway	Metre ...	92·63	...	...	...	...	...
Do. Patan-Hari Railway.	„ ...	...	...	...	...	23·00	...
Do. Kalol-Kadi Railway.	„ ...	...	...	...	...	12·20	...
Do. Kalol-Vijapur Railway ...	„ ...	...	...	...	...	29·60	...
Do. Patan-SiddhpurRailway... ...	„ ...	...	...	...	...	17·69	...
Do. Siddhpur-Kheralu Railway ...	„ ...	...	...	...	...	16·95	...
His Highness the Maharana of Meywar's Oodeypore-Chitor Railway ...	„ ...	60·31	...	...	...	...	...
Do. Mauli-Nathdwara Railway ...	„ ...	...	...	...	...	14·75	..
Kolhapur Railway	„ ..	29·07	...	...	...	...	...
Yeshvantpur-Mysore Frontier Railway .	„ ...	51·35	...	...	...	...	...
Mysore-Nanjangud Railway ...	„ ...	15·25	...	0·50	...	...	...
His Highness the Gaekwar's Dabhoi Railway	2′ 6″ ...	71·66	...	...	...	...	...
Do. Vishwamitri-Padra Railway ...	„ ...	...	...	7·20	...	...	....
Do. Padra-Mobha Railway	„ ...	...	..	...	...	9·00	...
Do. Bahadarpur-Songir Railway ...	2′ 6″ ...	...	...	...	...	9·50	...
Rajpipla State Railway	„ ...	...	...	19·73	...	...	...
Nanjangud-Gudalur Railway ...	Metre ...	...	...	...	...	54·0	...
			380·86		27·43		186·69

*The Palanpur Darbar has contributed towards the cost.

TABLE II.—*continued.*

Railway.	Gauge.	Open for Traffic.		Under Construction.		Surveyed or under Survey.	
		Miles.	Total.	Miles.	Total.	Miles.	Total.
Assisted Lines to be worked by Company—							
Ahmedabad-Parantij Railway ...	Metre ...	...	...	54·59	...	...	...
Surat *viâ* Nandurbar-Amalner Railway ...	Standard .	...	...	162·47	...	...	...
					217·06	...	...
Line constructed and worked by private Company—							
Bársi Light Railway	2' 6" ...	21·75	...	...	...	...	...
			21·75		...		...
Unclassified—							
Manmad *viâ* Amalner to Jalgaon Railway.	Standard .	...	...	...	...	110·14	...
Chalisgaon-Dhulia Railway ...	,,	...	...	...	...	37·31	...
Sabarmati-Dholka Railway ...	Metre ...	...	...	...	...	33·46	...
Baroda-Godhra Chord Railway ...	Standard .	...	...	...	...	44·00	...
Kurnool Road—Kurnool Railway ...	Metre ...	...	...	...	...	32·00	...
Barsi-Pandhapur Railway	2' 6" ...	...	...	...	...	32·00	...
Pandharpur-Sangola Railway ...	,,	...	...	...	...	20·00	...
							308·91

Chapter I.—GENERAL.

(*For the official year ending 31st March 1897.*)

Open mileage and extensions of line sanctioned.

The length of railways under the control of the Government of Bombay, (excluding the Hyderabad-Umarkot Railway which, though owned by this Government, is under the control of the Director-General of Railways) sanctioned at the end of 1895-96 was 6,239·93 miles, of which 6,025·81 miles were open for traffic on the 31st March 1896. Of the open mileage 2,079·75 miles were on the 5′ 6″ gauge, 3,780·04 miles on the metre gauge and 166·02 miles on the 2′ 6″ gauge. Of the unopen mileage, which was under construction, 60·55 miles were on the broad gauge, 104·89 miles on the metre gauge and 48·68 miles on the 2′ 6″ gauge.

The construction of the Surat-Amalner Section of the Tapti Valley Railway, a distance of about 162·47 miles was sanctioned during 1896-97. Sanction was also accorded to the Nanjungad Line being extended to a point half a mile closer to that town.

The Rutlam-Nagda-Ujjain Line (59·55 miles), the extension of the Mohpani Branch of the G. I. P. Railway (about 1 mile) and the Barsi Light Railway (21·75 miles) were opened for traffic during the year.

Accordingly, on the 31st March 1897, the total length of lines open under the control of the Government of Bombay was 6,108·11 miles, *viz.* 2,140·30 on the standard gauge, 3,780·04 miles on the metre gauge and 187·77 miles on the 2′ 6″ gauge; while a length of 162·47 miles on the standard gauge, 105·39 miles on the metre gauge and 26·93 miles on the 2′ 6″ gauge remained to be finished.

Important works completed and in progress.

Among the chief works completed on the *G. I. P. Railway* during the year under review may be mentioned the provision of interlocking arrangements at Mazagon and the extension of the yard and running shed accommodation for engines at Byculla. Large and important additions and alterations have been made at Akola and Nagpur Stations, and the work of renewing and strengthening the weak girders on the line has made very satisfactory progress, most of it being now finished. The restoration of the bridges which were washed away on the South-East Line in the monsoon of 1895 was completed. A new Institute has been built at Sholapur and the introduction of the new system of signalling throughout the line is almost completed. The work of strengthening the girders and rebuilding the tops of the piers, &c., of the Mund Viaduct on the Nagpur Branch is well in hand, as also is the restoration of the Dudhi Bridge which was wrecked by the floods of last monsoon.

On the *B. B. and C. I. Railway*, the terminal station at Colaba was brought into use early in April 1896, and work on the new Administrative Offices has made satisfactory progress; it is expected that these offices will be ready for occupation by about the end of the year. Of the important works put in hand in 1895-96 the doubling of the main line between Virar and Dahanu has been proceeded with vigorously; at the close of the official year most of the earthwork had been finished: the second line will be opened for traffic shortly. On the doubling between Itola and Amroli also work has proceeded satisfactorily; the length between Itola and Miyagam, a distance of 7 miles, is finished, and the second line there has just been brought into use; work is progressing on the length between Amroli and Miyagam. The renewing of the old 60 feet Warren girders with the new type fish-bellied plate-girders is being pressed on, about 40 per cent. of the work having been completed on the 31st March last. An additional grain shed has been constructed at Carnac Bridge and brought into use.

The construction work on the *Rajpipla State Railway* (from Anklesvar to Raj-Pardi) did not at first proceed satisfactorily; the contractors for the line having failed to complete their contract, the work has been carried out by petty contract under the B. B. and C. I. Railway Company's officers; and the line has been opened since the close of the official year.

Construction work on the extension of His Highness the Gaekwar's Dabhoi Line from *Vishwamitri to Padra* progressed satisfactorily; and this line also has been opened since the close of the official year.

Work on the *Ahmedabad Parantij Line* has been pushed on vigorously ; the length from Ahmedabad to Talod (33 miles) was opened for traffic on the 1st May 1897, and that from Talod to Parantij (7¾ miles) on the 1st July : the portion between Talod and Ahmednagar (about 14 miles) will be opened shortly.

On the *Rajputana-Malwa Railway*, the work of altering the signals to show only red and green at night and to fly to danger in case of any failure in the connections has been completed. The bridge over the Rudain nála at mile 114 on the Cawnpore-Achnera Line was rebuilt and an additional span of 1—40 feet girder provided to the bridge at mile 487/8 on the main line. The bridges over the Sanwar and Mauli nálas on the *Oodeypore-Chitor Line* have been dismantled and reconstructed. Additions and alterations are being made at Ujjain Junction Station for the joint use of the Rajputana-Malwa, Rutlam-Ujjain, and Ujjain-Bhopal Railways ; also at Cawnpore Station in connection with the entry therein of the Lucknow-Gogra-Cawnpore Link Line. The additional waterway required on *His Highness the Gaekwar's Mehsana Line*, and which could not be given in 1895, was provided.

On the *Southern Mahratta Railway* the work of altering the spectacles of distant signals to show red and green lights has been practically completed. To facilitate traffic, crossing-stations are being provided at several places on the Poona Branch as well as on the main line.

Principal events.

Among the principal events which occurred during the year may be noticed :—

(1). The opening for traffic in March 1897 of the Barsi Light Railway.

(2). The grant of a concession to Messrs. Killick, Nixon & Company of Bombay for the formation of a Company for the construction of a Railway on the standard gauge from Surat on the B. B. & C. I. Railway up the Tapti Valley to Nandurbar, and beyond to Amalner, a distance of about 162 miles; the line to be constructed with Rupee capital raised in India and on the "Branch Line" terms promulgated by the Government of India. The Tapti Valley Railway Company was duly floated and the first sod of the Railway was cut by His Excellency the Viceroy on the 30th November 1896.

(3). The linking up at Cawnpore of the Rajputana-Malwa and the Bengal and North-Western Railway metre gauge systems by the construction of the Lucknow-Gogra-Cawnpore Link Line.

Chapter II.—Works completed and in progress.

(*For the official year ending 31st March 1897.*)

GREAT INDIAN PENINSULA RAILWAY—(*Standard Gauge*).

The renewal of rails was steadily continued. The arrangement that is being gradually worked to is to leave no iron rails in the road by the year 1900, and to apportion steel rails to the various sections of the line as follows :

86-lb. steel rails on the Bhore and Thull Ghâts (28¾ miles): this work is completed. 82-lb. steel rails from Bombay to Itarsi (excluding the Thull Ghât) and from Kalyan to Karjat and throughout the Nagpur Branch from Bhusaval to Nagpur. 69-lb. steel rails from Itarsi to Jabalpur and from Lonavla to Raichur.

On the 31st December 1896 there were 189 miles with the old 68-lb. iron rails still in the road and needing renewal by the year 1900. The renewals are being carried out at the rate of 54 miles per year in order to complete the work by the 30th June 1900.

There were, on the 31st December, 243 miles of 69 lbs. steel rails on lengths allotted eventually to rails of 82-lb. section. 189 miles of these rails will be set free for the purpose of renewing the iron road, being replaced in turn by 82-lb. rails. Thus, on the 30th June 1900, there will remain (243—189) or 54 miles of 69-lb. steel rails that will need to be renewed by 82-lb. rails at some later date when, in process of time, they shall have worn out.

GREAT INDIAN PENINSULA RAILWAY COMPANY.

Excepting the Bhore and Thull Ghâts where the intention is to retain wooden sleepers, it has been decided to have nothing but cast-iron pot-sleeers in the road, as the efficiency and economy of this class of road has been established. The original programme contemplated the renewal of timber sleepers at the rate of 60 miles per year; but this rate is not being worked to, having been found to be in excess of actual requirements. All the remaining timber sleepers in the road will gradually be replaced by cast-iron pots before the year 1900.

Among the chief works completed during the year may be mentioned the provision of inter-locking apparatus at Mazagon and the extension of the yard and running shed accommodation for engines at Byculla.

Considerable inconvenience used to be experienced by the Traffic Department owing to the necessity that existed for the performance of shunting in the joint sidings at Dadar, the main line being generally blocked while shunting was going on. With a view to facilitate traffic working, lessen delays, and remove risk of accidents, a new shunting siding has been laid in at that station; the sick-siding that existed there has been converted into a dead end lie-by siding and a new sick-siding provided.

Through want of sufficient siding accommodation at Kurla, trains used to be constantly delayed there. To lessen these delays the existing sidings at the station are being considerably extended; an engine ash-pit, water-crane and tank are also being provided.

To facilitate traffic working, the provision of additional sidings and an engine pit at Thána has been sanctioned: the work will be put in hand as soon as the necessary land is acquired. The insufficiency of accommodation at this station has been the subject of consideration for a long time past and a scheme was drawn up for the reconstruction of the station. A portion of the works proposed, *viz.* the construction of part of the passenger platform and foot-overbridge and alterations to sidings was completed a few years ago and a bungalow for the Station Master and his Assistant more recently. Further additions and alterations required have been sanctioned and work is being put in hand. It has been found necessary, in order to improve the train service, that a water-supply available all the year round, should be provided at Thána. Sanction has, accordingly, been given to the sinking of a large well at the station: work will be put in hand as soon as the necessary land is acquired.

The siding accommodation at Khardi for loading firewood is being improved. At Nasik, the extension of the platforms, the laying in of new sidings and the construction of a waiting-shed for pilgrims have been completed. A tank for the storage of mineral oil in bulk and a new siding have been constructed for Messrs. Graham & Company at Jalgaon and a siding and approach has been laid for their storage tank at Khandwa.

At Bhusaval, the Railway cemetery has been extended, and sanction has been accorded to the provision of four carriage examining pits as also for fixing a corrugated iron screen on the east side of the Engine erecting shop for the protection from the sun of the men working in it. The present accommodation for third class passengers at this junction has been found insufficient. A new waiting shed for the use of these passengers has been sanctioned and work is being put in hand.

Work on the new station at Akola was completed and the station has been brought into use. Large and important additions were also made at Nagpur.

At Barsi Road Station, the junction arrangements in connection with the entry of the Barsi Light Railway are in hand.

A new Institute has been built at Sholapur for the benefit of the employés of the Railway.

The public approach to the Diksal Station had to cross four lines of rails in rear of the station building. A foot-overbridge across the rails is therefore being provided.

Work on the extension of the Mohpani Branch to the new coal-fields of the Narbada Coal Company was completed and the line brought into use in November 1896.

The introduction of the new system of signalling throughout the line is nearly completed.

The renewal and strengthening of defective girders has made very satisfactory progress. The following is a summary of the work that has been done up to 31st March 1897 :—

Strengthening	30 feet girders	... ...	431 spans.
Renewal of	60 „	of the B. B. & C. I. Railway type	36 „
„	100 „	of the Chinni Creek type ...	9 „
Strengthening	62 „	of the Waghur and Mannair type	14 „
(The two remaining spans of this type, *viz.* those at the Buldi Bridge are under construction).			
Renewing	84 feet girders, Thána Creek	... ...	1 span.

Ehegaon Viaduct, Thull Ghát, 6 spans of 142 feet girders.—After mature consideration it has been decided to abandon the strengthening of these girders and to replace them by others of greater strength. The road being a double one, there are at present four girders to each span. The new bridge will consist of two girders to each span, the road being carried by cross-girders of great strength. The plans and estimates have just been sanctioned by the Government of India.

Buldi Bridge, 2 spans of 62 feet girders, mile 360.—The strengthening of these spans, the last remaining of the Waghur and Mannair type, is in progress. A temporary diversion has been constructed on which the road runs while the girders are being strengthened.

Mund Viaduct (Nagpur Branch).—This viaduct consisted of 15 spans of through-girders on abutments and piers of stone masonry. The masonry showed signs of failure long ago, and a speed restriction of 4 miles an hour has, for many years, been imposed on the bridge. It was accordingly decided to rebuild the piers and abutments as far as practicable and to transform the through girders into deck girders, thus lowering the masonry by an amount equivalent to the depth of the girders. The bottom booms of the girders in their new position will still be well above high flood-level. The re-construction of the viaduct is now in hand. The road is a single one on the "Down" side but the piers and abutments were built for a double way. The road has accordingly been slewed over to the "Up" side on a diversion and crosses the viaduct on a temporary deck bridge, constructed from old Warren girders of the B. B. and C. I. Railway type.

The *Seena* and *Bori* Bridges on the South-East Line, which had been destroyed by the floods of 1895 and were rebuilt, were opened for traffic in May and June 1896, respectively.

Benisherur Bridge, mile 330½, *South-East Line.*—This bridge had also been damaged by the floods of 1895. The south abutment has been rebuilt and a span that was washed away has been replaced after certain minor repairs. The repaired bridge was opened for traffic in May 1896.

Sukkur Bridge, mile 536½, *North-East Line.*—The first pier from the south of this bridge has, from time to time, been badly scoured; before the setting in of the monsoon last year the pier was protected by a screen of rails driven in all round the base of the pier and the intervening space between them and the pier filled in with pitching, the whole being boxed in by a gridiron of rails over the top.

Dudhi Bridge, 6 spans of 78 feet girders, at mile 523, North-East Line.—The second pier of this bridge was underscoured by a flood on the 13th August 1896. The pier canted over bodily, in the direction of its length, to an angle of 25°, taking the girders with it. Trains are running on a diversion, with a temporary bridge 460 feet long, carried on 6 trestles and 14 sleeper cribs.

The old pier that failed has been broken up and removed, and the well-hole, where new foundations have to be put in, is protected by sheet-piling of old sleepers and rails. The new foundation will consist of two iron cylinders 9′ in diameter. All the other piers of the bridge are being protected by sheet-piling of old rails driven their full length.

The whole of the girders of this bridge are to be strengthened.

DHOND AND MANMAD RAILWAY—(*Standard Gauge*).

The fencing of this line has been practically completed. The whole line is now fenced with the one exception of the 8 miles on the East of the line between Ankai and Manmad. The materials are to hand but the erection of this length of fencing has been held over pending the construction of the Hyderabad-Godavery Valley Railway which passes in near Ankai and runs parallel to the Dhond and Manmad Railway through the Ankai Pass.

The plans for the entry of the Hyderabad-Godavery Valley Railway into Manmad are under consideration.

THE BERAR AND WARDHA COAL STATE RAILWAYS—(*Standard Gauge*).

No works of any importance were carried out on these lines during the past official year.

B. B. & C. I. RAILWAY—(*Standard Gauge*).

Work on the new Administrative Offices, opposite Church Gate Station has proceeded steadily. The building has been roofed in: the internal fittings remain to be done as well as the finishing of the dome. It is expected that the work will be nearly if not quite completed by the end of 1897. The plague has much interfered with the speedy completion of this work.

At Carnac Bridge it was found that further shed accommodation was necessary for the protection of the grain traffic. An additional shed was therefore constructed and the goods platforms were covered in: a crane siding was also laid.

The foot-overbridge across the Railway to the north of the Marine Lines Station, in a line with the boundary of the Hindu and Islam Gymkhanas, referred to in last year's report, has been completed and brought into use.

The only foot-overbridge remaining to be constructed is that to the south of Marine Lines Station.

Owing to want of siding accommodation at Dadar Junction shunting had to be done on the main line. To obviate the necessity for this, two shunting sidings have been laid in on land obtained from the G. I. P. Railway Company.

It was considered that the delay and difficulty which was experienced in dealing with traffic coming from the north for disposal in Bombay would be very considerably obviated by the provision of sorting sidings to the north of Dadar Station for the marshalling of up trains. Six sorting sidings are accordingly being laid in. The erection of the necessary signal-cabins is in hand.

On the doubling of the line between Virar and Dahanu, the earthwork has been completed. Ballast is being spread and permanent-way material laid down. Since the close of the official year, the sanction of Her Majesty's Secretary of State for India has been received for the doubling of the line between Dahanu and Sachin.

The doubling of the line between Amroli and Itola, a distance of 67 miles, was sanctioned in October 1895. At the close of the past official year the earthwork over the entire length was practically completed, as also the ballasting and platelaying between Itola and Miyagam, a distance of 7 miles. This latter length has just been opened for traffic. Permanent-way materials for the portion from Amroli to Miyagam have not as yet been received from England.

The work of renewing the old 60′ Warren girder bridges with plate girders is being pressed on. On the 31st March last, out of a total of 642 spans to be renewed, 257 spans, *i.e.*, 40 per cent of the total had been erected and were in use. This leaves 385 spans still to be renewed. The programme provides for the completion of all the renewals by the end of June 1899.

The additions to and alterations in sidings, shed and staff-quarters, which were required at Godhra in connection with the junction with the Godhra-Rutlam Railway, were almost completed, with the exception of the weigh-bridge

which has been deferred on account of the proposed chord line between Baroda and Godhra being under consideration.

On the Anand-Godhra Branch, the work of inserting a sixth pair of pot-sleepers under every 20′ rail has been finished. The replacing by wire-fencing of the euphorbia which was originally planted has been proceeded with. 28 miles of wire-fencing will soon be completed.

During the year sanction was accorded to the construction of a Railway Hospital at Godhra with quarters for the compounder and servants and a cook-house.

Additional siding accommodation is being provided at Sabarmati Junction to facilitate the transhipment of goods and the marshalling of trains at that station.

GODHRA-RUTLAM-NAGDA RAILWAY, NAGDA-UJJAIN RAILWAY—(STANDARD GAUGE).

HIS HIGHNESS THE GAEKWAR'S PETLAD RAILWAY—(*Standard Gauge*).

No works of importance were carried out on these lines during the year under report.

RAJPUTANA-MALWA RAILWAY—(*Metre Gauge*).

During the year, the work of altering signals throughout the main line and branches by adding counter-weights so that they should fly to danger in case of failure of the connecting rod was completed, also that of changing spectacles of distant signals to show red and green instead of red and white.

The 3rd class coaching stock having been found insufficient to deal with the steadily increasing traffic of that class, Government have accorded sanction to the construction of 46 3rd class bogie carriages in addition to the forty carriages of the same class sanctioned in 1895 : also to the provision of four oil-tank vans for the carriage of mineral oil in bulk.

Thirty-five miles of line laid with 41¼ lb. rails were relayed with 50-lb. steel rails, and 52·75 miles of line were fenced during the past year.

At the instance of the Traffic Department, additional quarters are being provided for the Traffic Inspector and married European guards at Bandikui. For several years past the native passenger waiting-shed at this junction has not been equal to the increasing requirements of traffic. As the shed was inconveniently situated, it was considered inadvisable to add to it. A larger one is now being provided on a suitable site with a palisade fence surrounding it to permit of the traffic being controlled. Additions and alterations are also being made in the station building to provide new booking and luggage offices with accommodation for 1st and 2nd class passengers. The concentration of points and signal levers at the station has been completed, as also work on the quarters for the school-mistress; and an upper story has been built to the Medical Officer's quarters.

Gates have now been provided to all the level-crossings between Jeypore and Bandikui, and a 20′ span has been added to the culvert at mile 11 chain 28, Agra Branch. Additional quarters for clerks and menials of the Traffic Department have been constructed at Phulera.

The traffic at Agra Fort Station has gone on increasing and the normal traffic being very considerable, a corrugated iron-shed is being provided on the local goods platform. Additions and alterations are also being made to the broad gauge goods yard at this station.

On the Rewari-Ferozepore Section, the new school-house and quarters for the School-Mistress at Sirsa and additional reservoirs for the storage of water at Raman and Bhatinda Stations have been completed. The additions and alterations to the siding accommodation at Baragudah, Kalanwali, Raman and Bhattu stations have been completed, as also quarters for European Drivers and menials at Sirsa.

Additions and alterations have been made in Bhiwani Station yard. The water-supply at this station was drawn from a well but the quality of the water has been found to be bad for locomotives. A new scheme has therefore been

B.B.&C.I. RAILWAY.
(Including the Rajputana Malwa Railway)
and LINES of Railways in Connection.
Scale 64 Miles to One Inch.
Lines worked by B. B. & C. I. Ry. Co.
B. B. & C. I. broad (5ft. 6in.) gauge lines.
Rajputana Malwa metre gauge.
H. H. the Gaekwar State lines.
Other completed lines.
Lines under construction, or projected.
Feeder lines.
Lines projected by B. B. & C. I. Ry.
KASHMIR
PUNJAB
RAJPUTANA
BOMBAY
AGENCY
NORTH WESTERN PROVINCES & OUDH
CENTRAL INDIA AGENCY
CENTRAL PROVINCES
HYDRABAD
KUTCH
KATTYWAR
Gulf of Kutch
Gulf of Cambay
Rann of Kutch
Mouths of the Indus
HIMALAYA MOUNTAINS
NEPAL
PESHAWAR
RAWALPINDI
LAHORE
AMRITSAR
MULTAN
MONTGOMERY
MOOLTAN
BAHAWALPUR
SUKKUR
KELAT
QUETTA
SIBI
JESALMEER
BIKANEER
JODHPORE
AJMERE
NUSSEERABAD
TONK
BOONDEE
KOTAH
ODEYPORE
ABU ROAD
PALANPUR
AHMEDABAD
BARODA
SURAT
BROACH
BOMBAY
POONA
DELHI
MEERUT
UMBALLA
LUDHIANA
FEROZEPORE CANT.
PATIALA
JHAWALPURN
SIRSA
HISSAR
REWARI
ALIGARH
AGRA
MUTTRA CANT
FUTTEHPUR
ALLAHABAD
CAWNPORE CANT.
LUCKNOW
BAREILLY
GWALIOR
DHOLPUR
JHALRAPATAN
NEEMUCH
RUTLAM
INDORE
MHOW
BHOPAL
BHILSA
BINA
SAUGOR
JABALPUR
KATNI
REWAH
NAGPUR
AKOLA
WARORA Coal Fields
CHALISGAON
MANMAD
KALYAN
BASSEIN Rd.
DHOND
KHANDWA
ITARSI
HOSHANGABAD
BHUSAWAL
SHAHJAHNPUR
HARDWAR
LAKHBAR
SAHARUNPUR
KALKA
UMBALLA
CHANDAUSI
TUNDLA
ETAWAH
KERAWLI
MARWAR Jn.
PALITANA
DHORAJI
VERAWAL
MORVI
WADHWAN
DHOLA
BHAVNAGAR
Por Bandar
KARACHI
KOTRI
BADMAN
SHIKARPUR
SIBI
QUETTA
CHAMAN
KILA ABDULLA
GULISTAN KHAREZ
GULISTAN
SRINAGAR
MURREE
SHELUM
JAMOO
WAZIRABAD
MIANI
MIAN WALI
KUNDIAN
KALABAGHO
MALO WALI
GAGAN
ROUMIA
Indus River
Chenab River
Jhelum River
Sutlej River
Ghaggar River
Luni River
Nerbudda River
Taptee River
Godavery River
Pranhita River
Wurdha River
Wein Ganga River
Ganges River
Jumna River
Kistna River
Bhima River
Mahanuddy River
Soane River
Tons River
Betwa River
Sinde River
Kane River
Chumbul River
Kalee Sinde River
Parbuttee River
Banas River
Loonee River
Sabermuttee River
Mhye River
Mahee Kanta
Rewah Coal Fields
Mopaul Coal Fields
Mandla
Chanda
Scinde
Basim
Hingoli
Jaulna
Pyeth
Aboi
Darur
Ellichpoor
Amraoti
Khangaon
Wun
Chanda
Kamptee
Seonee
Chindwara
Betool
Multaee
Sirsee
Nagode
Rajpoor
Nimar
Khetia
Khairwa
Nasik
Igatpuri
Ahmednugger
Sholapoor
Kurnool
Gooty
Tadpatry
Cuddapah
Nellore
Ongole
Guntoor
Kistnah
Rajahmundry
Gondavery
Ellore
Cocanada
Vizagapatam
Chicacole
Berhampore
Cuttack
Pooree
Balasore
Midnapore
Hooghly
Howrah
Calcutta
Burdwan
Bancoorah
Bhaugulpore
Monghyr
Patna
Arrah
Dinapore
Buxar
Ghazeepore
Benares
Mirzapore
Allahabad
Futtehpore
Banda
Humeerpore
Jhansi
Gwalior
Agra
Muttra
Bhurtpore
Alwar
Rewaree
Hissar
Bhutteana
Ferozepore
Loodiana
Umballa
Kalka
Simla
Nahun
Subathoo
Kotgurh
Kangra
Dalhousie
Chumba
Kishtwar
Baramula
Punch
Jummoo
Rajpoora
Kotah
Boondee
Jeypore
Ajmere
Nusseerabad
Tonk
Marwar Jn.
Pallee
Sojat
Jodhpore
Jesalmeer
Pokurun
Nagour
Bikaneer
Phoolra
Rewaree
Delhi
Meerut
Moradabad
Bareilly
Shahjehanpore
Futtehgurh
Mynpoorie
Etawah
Cawnpore
Lucknow
Fyzabad
Sultanpore
Allahabad
Futtehpore
Banda
Humeerpore
Jhansi
Gwalior
Dholpur
Kerowli
Agra
Muttra
Bhurtpore
Alwar
Rewaree
Hissar
Bhutteana
Ferozepore
Loodiana
Umballa
Kalka
Simla
Nahun
Subathoo
Kotgurh
Kangra
Dalhousie
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Kishtwar
Baramula
Punch
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Rewaree
Delhi
Meerut
Moradabad
Bareilly
Shahjehanpore
Futtehgurh
Mynpoorie
Etawah
Cawnpore
Lucknow
Fyzabad
Sultanpore
Allahabad
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sanctioned which provides for the construction of a large reservoir to hold at least 4 months' supply of water with a channel leading to the Irrigation Canal, from which water in future will be obtained. The work is in hand.

On the Cawnpore-Achnera Railway, quarters were constructed for Assistant Station Masters at certain stations. Gangmen's huts have been provided between Cawnpore and Kanauj and Permanent Way Inspectors' quarters at Kasganj. At Hathras City the siding leading to the cotton presses was further extended at the desire of the press-owners, and at Cawnpore the local goods-shed accommodation was extended.

The watering arrangements at Muttra were completed as also the reconstruction of the bridge over the Rudain Nala near the station of that name.

Increased water-tank accommodation for the Running-shed at Cawnpore being urgently wanted, extra iron tanks, on rail staging, to hold 20,000 gallons of water are being provided.

The new metre-gauge line from Lucknow *vid* Gogra to Cawnpore has been linked up with the Rajputana-Malwa Railway system at Cawnpore. This has rendered the remodelling of Cawnpore Station necessary. The designs and estimates put forward by the B. B. & C. I. and B & N. W. Railway Companies were submitted for the approval of the Government of India. They have, for the present, agreed only to the construction of a transfer yard to allow of the housing and transfer of metre gauge stock and the provision of certain accommodation required by the Bengal and North-Western Railway. The work is in hand and is being vigorously pressed.

At Ajmere, work on additional storing and office accommodation was completed and a new house built for the Engineer-in-Chief, in place of the building formerly used by him, which has recently been sold to the Ulwar Darbar. The existing waiting hall at the Station having been found to give insufficient shelter, a shed of corrugated iron for the use of third class passengers is being provided.

On the *Abu Division*, the 1-40′ girder bridge at mile 487/8 between Sarotra and Chitrasani Stations had its wing walls and embankments scoured out during the monsoon of 1895, by a flood which rose to a foot above the bottom of the girders. Similar trouble had been experienced in previous years, thus establishing the insufficiency of the waterway, which is accordingly being widened by the provision of an additional span.

Quarters for clerks and menials have been provided at Rohera, Chitrasani, Umardeshi and Sanderao, while additional quarters for drivers and the menials of the Locomotive Department have been built at Abu Road. Quarters have also been built at Abu Road for the Assistant Engineer and for clerks of the Traffic Department and a water-supply has been laid to all the staff-quarters.

The goods platform has been extended and a tranship platform and siding provided at Mehsana.

On the *Malwa Section*, a house is being provided at Mhow to serve as a residence for the Executive Engineer, Holkar and Scindia-Neemuch Division; quarters are also being built at that station for the menials of the Locomotive and Traffic Departments.

An Institute has been provided at Rutlam for the benefit of the Railway employès. Owing to the opening of the Godhra-Rutlam and Rutlam-Ujjain Railways, the staff at this station has increased considerably: to provide means for teaching the children of the employès a school-house is being built there together with quarters for a school-mistress.

Similarly owing to the closing of Khandwa as a Locomotive Station and the consequent concentration of a large number of employès at Mhow, it has been found desirable to open a school at that station for their children. Sanction has been given for the construction of a school-house.

Considerable additions and alterations have been rendered necessary at Ujjain in connection with the entry into it of the Ujjain-Bhopal Railway from the east and of the Rutlam-Ujjain Railway from the west. The works are in progress.

PALANPUR-DEESA RAILWAY—(*Metre Gauge*).

No work of any importance was carried out on this line during the past year.

HIS HIGHNESS THE GAEKWAR'S MEHSANA RAILWAY—(*Metre Gauge*).

The additional waterways required on this Railway which could not be given in 1895, were provided during the past year.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre Gauge*).

(Including the Mysore State Railway, the Guntakal-Mysore Frontier Railway, the Yeshvantpur-Mysore Frontier Railway, the Kolhapur State Railway and the Nanjangud Extension.)

During the official year under report, the work of altering the spectacles of all distant signals on the system to show red and green lights, has been practically completed. An indent has been submitted for Saxby and Farmer's balanced arms to be fitted to all Home and Distant signals, so that the arms may fly to danger in the event of their connecting rods accidentally breaking.

To obviate delays to trains, crossing-stations have been sanctioned between :—

Kopbal and Munirabad	...	...	($13\frac{1}{4}$ miles apart.)
Hubli and Dundur ...	...	...	(12 „)
Alnawar and Nagargalli	...	...	($9\frac{3}{4}$ „)
Raibag and Kudchi ...	...	...	($10\frac{3}{4}$ „)
Bellary and Kudatani	...	...	($10\frac{1}{4}$ „)
Saswad Road between Ghorepuri and Phursangi.			($8\frac{3}{4}$ „)

Messrs. Best and Company, who do a large business in selling petroleum in bulk in the Madras Presidency and the Mysore State, have erected storage tanks at Bangalore, Mysore, Arsikere and Bellary, and sidings to these oil tanks have been provided. A storage tank and siding are also being provided at Guntakal.

Main Line (*Portuguese Frontier to Bezvada*).

The renewals of sleepers on sections west of Dharwar referred to in the last report were continued throughout the year.

The alterations and additions to the Workshops at Hubli are well in hand. Plans and estimates have been prepared for the re-arrangement of the Traffic Yard at this Junction, and an altered scheme for locating a Passenger station half a mile west of the present station is under consideration.

Proposals embodying the requirements of the Traffic Department to work the Goods Transhipstation at Tadepalli have been settled : the estimates are being prepared by the Bezwada-Madras Railway Authorities by whom the work will be carried out. Running-rooms for Drivers and Guards, and quarters for the Carriage Examining staff at this station have been provided. A siding is being laid to the bank of the Kistna Canal near Tadepalli with the view of tapping the river and canal traffic.

Poona Branch (*Londa to Poona*).

At Poona Junction, Saxby and Farmer's system of interlocking signals has been sanctioned ; the work will be carried out by the G. I. P. Railway Company who work the station.

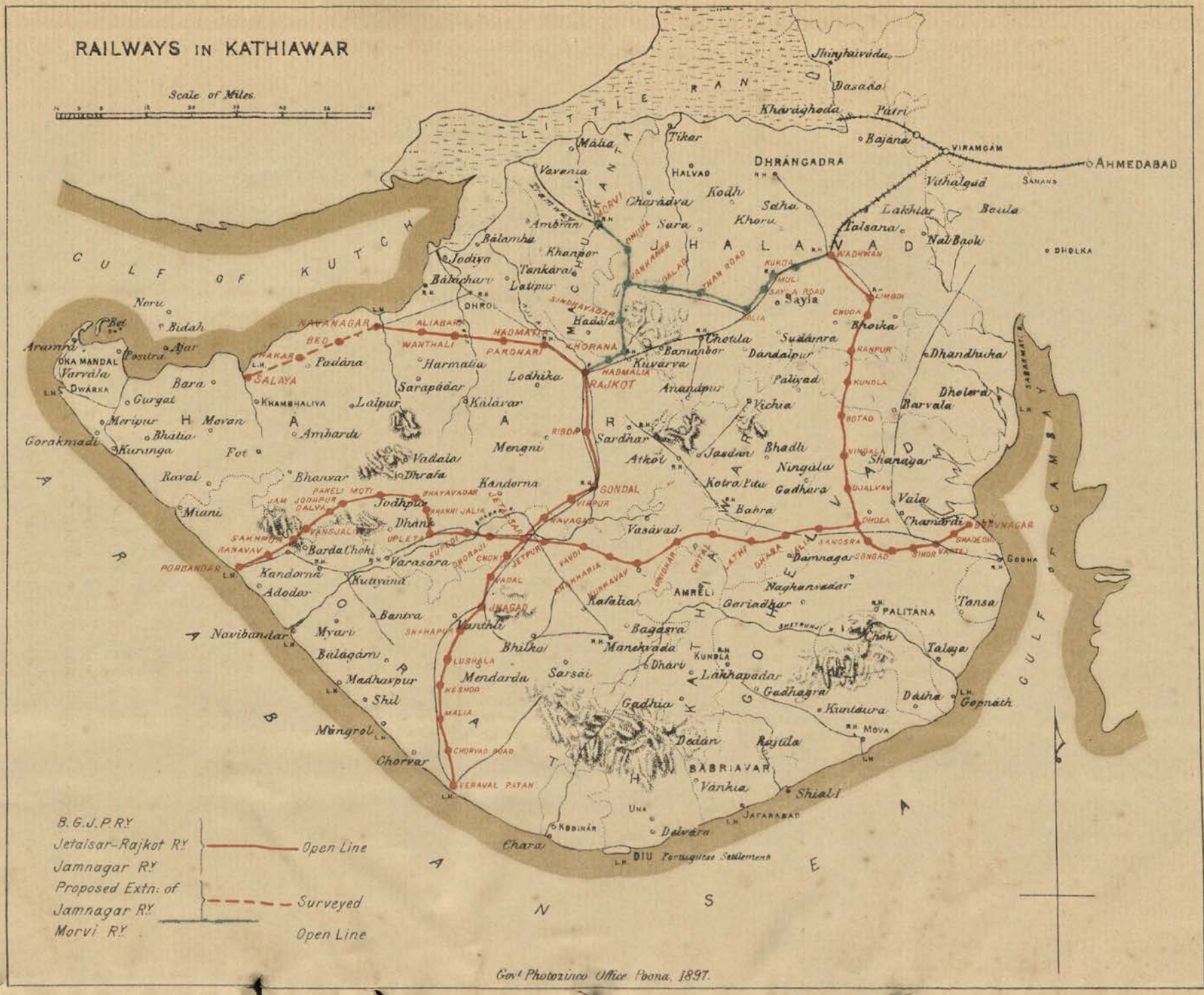
Additional waiting accommodation at Wathar for First and Second class passengers has been provided.

Mysore State Railway (*Harihar to Mysore*).

Mysore-Nanjangud Extension.

Renewals of unserviceable creosoted pine sleepers on this section are still being carried out to a large extent.

MAP
OF THE
SOUTHERN MAHRATTA RAILWAY
AND ADJACENT LINES
Scale. 48 Miles to an Inch
REFERENCES.
S.M.R. & W.I.P. lines open.
Do. Proposed.
Other Metre Guage lines open.
Do. Proposed.
Broad. Guage lines open.
Do. Proposed.
Reduced to ¼ Scale.
Govt Photozinco. Office, Poona. 1896.
BOMBAY
KALYAN
ALIBAG
POONA
DHOND
BARSI ROAD
ANJANWEL
CHIPLUN
RATNAGIRI
KOLHAPUR
MIRAJ
MORMUGAO
CASTLE ROCK
GOA
KARWAR
KUMTA
HUBLI
GADAG
MANGALORE
HARIHAR
SHIMOGA
BANGALORE
MYSORE
RANJANGUD
CALICUT
BEYPORE
METTUPALAIYAM
ERODE
SALEM
PODANUR
TRICHINOPOLY
DINDIGUL
MADURA
COCHIN
QUILON
TRIVANDRUM
MANIYACHI
TUTICORIN
TINNEVELY
NAGERCOIL
TANJORE
NEGAPATAM
MUTUPET
PONDICHERRY
VILLUPURAM
PORTONOVO
MAYAVARAM
JALLARPET
CHINCLEPUT
ARKONAM
MADRAS
NELLORE
DHARMAVARAM
GUNTAKAL
RAICHUR
WADI
SECUNDERABAD
HYDERABAD
KAZIPET
MULAPUR
CHANDA
PANAVAR
RAIKNER
BEZVADA
MASULIPATAM


RAILWAYS IN KATHIAWAR
Scale of Miles
B.G.J.P.R.Y.
Jetalsar-Rajkot R.Y.
Jamnagar R.Y.
Proposed Extn: of
Jamnagar R.Y.
Morvi R.Y.
Open Line
Surveyed
Open Line
Govt Photozinco Office Poona, 1897.

The works in connection with the re-modelling of the yard at Bangalore are nearing completion.

A siding to serve grain godowns to be built by the Mysore Darbar in the vicinity of the Davangere Station has been sanctioned, and the work started.

Yeshvantpur-Mysore Frontier Section.

The permanent station building and junction arrangements at Yeshvantpur are completed; quarters for the Assistant Station Masters at all stations on this section have been built.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

Including JETALSAR-RAJKOT RAILWAY.

During the year the waterway at the Keri Bridge was improved, while that at the Raidhra was opened out; the Oojet Bridge restoration works were completed and the bank was raised at mile 79 on the Bhavnagar-Wadhvan Section.

Menials' quarters for Traffic and Police were built at Dhoraji and Ranawao; quarters were also built for the messman at Dhola, and roads and paths provided at Jetalsar where also the platforms Nos. 1 to 4 were extended. Further, at Jetalsar, a room was added to the unmarried Drivers' quarters to serve as an Armoury, and an office for the Resident Engineer and quarters for the menials of the Traffic Department were constructed.

A siding was laid to Mr. Tribhovandas Shah's Ginning Factory at Junagad and the road overbridge at mile 20 near Gondal was completed.

The work of collecting ballast on the Jetalsar-Rajkot Railway has been finished.

One double and two single hearths have been erected in the smithy at Ghadechi for the Jamnagar Railway. A timber drying-shed has also been erected in the Locomotive yard there.

The following works were under progress at the close of the year :—

Altering goods siding at Bhavnagar Station.

Erecting latrines at Dhola.

Demarcation of land.

Two sets of latrines 20 units each at Jetalsar.

New well at Jetalsar.

Fencing of compounds of all buildings at Jetalsar.

Twelve units for bazar at Jetalsar.

Goods depôt and sidings at Rajkotpura.

Staff-quarters for a Signaller and Traffic menials at Rajkot.

JAMNAGAR RAILWAY—(*Metre Gauge*).

This line, from Rajkot to Jamnagar, was under construction throughout the year and the whole length of about 50½ miles was finished by the 31st March last and was opened for traffic on the 8th April 1897. Some slight delay occurred in completing the line owing to the difficulty of landing rails in bad weather; but for this, the line would have been opened, at least for goods traffic, in the month of March. Construction was commenced in January 1896 and considering the heavy nature of the works and the amount of bridging, the completion of 50½ miles of railway in 14 months is most creditable to the staff of the Bhavnagar-Gondal-Junagad-Porbandar Railway, who had charge of the work.

AHMEDABAD-PARANTIJ RAILWAY—(*Metre Gauge*).

Work on this line has also proceeded vigorously; and the first section from Ahmedabad to Talod, a distance of 33 miles, was opened for traffic on the 1st May 1897 and that from Talod to Parantij (7¾ miles) on the 1st July. The section from Parantij to Ahmednagar (Hathmati) is expected to be ready for opening about the 1st October 1897.

MORVI RAILWAY—(2′ 6″ *Gauge*).

1,307 11-lb. steel sleepers for 19-lb. rails have been renewed on main line, mileage 0 to 24; 350 teak sleepers have also been renewed on the main line between Wadhwan and Vankaner, mileage 0 to 52.

Three 10-feet arches have been added to the culvert at Anandpore, mile 41, and petty repairs have been done throughout the line.

Wooden fencing has been erected at Morvi Station, and that of Khorana Station has been lengthened. Wire fencing has been erected at Muli Station and a waiting-room built.

A 3rd Class waiting-shed and also a bath-room for 1st and 2nd Class passengers have been built at Vankaner Station.

Quarters for Timekeepers have been built at Dhuva and Muli Stations, and one room added to the menials' quarters at Dolia and Dhuva.

HIS HIGHNESS THE GAEKWAR'S DABHOI RAILWAY—(2′ 6″ *Gauge*).

No work of any importance was carried out on this line during the past official year.

HIS HIGHNESS THE GAEKWAR'S VISHWAMITRI-PADRA RAILWAY—(2′ 6″ *Gauge*).

This line, about $7\frac{1}{4}$ miles in length, is an extension of His Highness the Gaekwar's Dabhoi Line. It crosses the main line of the B. B. & C. I. Railway by means of a sub-way. The construction work which was nearing completion at the close of the year has now been finished and the line was opened for traffic on the 1st July 1897.

RAJPIPLA STATE RAILWAY—(2′ 6″ *Gauge*).

Construction work on this Railway which extends from Anklesvar Station on the B. B. & C. I. Railway to Raj-Pardi in the Rajpipla State was in hand throughout the year. The contractors for the line having failed to complete their contract, the work has been carried out by petty contract under the B. B. and C. I. Railway Company's Officers. All the work has been completed since the close of the official year and the line was opened for traffic on the 1st July 1897.

BARSI LIGHT RAILWAY—(2′ 6″ *Gauge*).

The construction work on this line was pressed vigorously and was almost all completed by March last. The Railway commences at Barsi Road Station of the G. I. P. Railway and terminates at the town of Barsi, $21\frac{3}{4}$ miles distant. The track is laid on the north side of the Provincial Road, nearly the whole way, and the piers and abutments of existing bridges have been utilized for the Railway. The arches of the road bridges were not strong enough to carry the Railway. The piers and abutments were accordingly raised to carry plate girders clear of the arches. As far as the Railway is concerned, the bridges are spanned throughout by plate girders. The entire length was opened for goods traffic on the 1st March and for passengers on the 19th March 1897.

Chapter III.—Lines under Survey or projected.

(*For the official year ending 31st March 1897*).

Nagda-Muttra Railway.

In the Report for 1895-96, it was stated that the project estimates for this line as also for the branches Muttra to Agra and Muttra to Aligarh had been submitted for the consideration and orders of the Government of India.

The Government of India have approved of the alignment generally, but sanction for its construction has not yet been given. Meanwhile the Jeypore Darbar are formulating a scheme, which has received the general approval of the Government of India, for the construction of a railway on the metre gauge to connect Jeypore with the Nagda-Muttra Line, at some point near the Chambal River.

Tapti Valley Railway.

In June 1896, Her Majesty's Secretary of State of India granted a concession to Messrs. Killick, Nixon & Co., of Bombay, for the formation of a Company with rupee capital raised in India for the construction "on branch line terms" of a railway on the standard gauge from Surat on the B. B. & C. I. Railway up the Tapti Valley to Nandurbar, and on to Amalner, a distance of about 162 miles, the line to be constructed and worked through the Agency of the B. B. & C. I. Railway Company.

The Company was duly floated and an Indenture between the Secretary of State for India and the Tapti Valley Railway Company was executed on the 28th August 1896. The first sod of the Railway was cut by His Excellency Lord Elgin, Viceroy and Governor General of India, on the 30th November 1896.

In the Report for 1895-96, it was stated that the estimates for the Surat-Amalner line could be reduced by about Rs. 1,65,460 if the line were made to join the B. B. & C. I. Railway main line at a point 2½ miles to the south of Surat Station. This proposal was put forward with a view to avoiding heavy work near Surat and the difficult crossing of the Kankrakhari River which a direct entry into Surat would entail. The Government of India approved of the suggestion and the Branch line will thus join the B. B. & C. I. Railway a little to the south of Surat. On the completion of the Branch Railway every passenger train going to and coming from the Branch shall have its terminus at the present Surat Station of the B. B. & C. I. Railway.

A new alignment was surveyed for the line from its new junction with the B. B. & C. I. Railway till it joined up with the original alignment of Mr. Savielle about 5½ miles from the junction. Further the original location has been realigned in several places, the improved line shortening the total distance between the junction and Nandurbar by about three miles, besides considerably reducing the work to be done.

Construction work was practically started in January 1897 and by the 31st March a considerable amount of earth-work, &c., had been done up to mile 30.

The project estimate contemplated the provision of 69 lb. double-headed steel rails with cast-iron pot sleepers. In accordance with the Tapti Valley Railway contract, however, 70 lb. flat-footed rails are being put in the road on creosoted pine or teak sleepers. This has necessitated a revision of the estimate which has now been fixed at Rs. 1,27,86,994, exclusive of Rolling Stock, which will be supplied by the B. B. & C. I. Railway Company.

As regards the eastern portion of the project, *viz.* the length between Amalner and Jalgaon which is to be constructed by the G. I. P. Railway Company, the question has arisen whether the line from Amalner should go *viâ* Dharangaon to Jalgaon as originally surveyed or whether a line from Amalner *viâ* Dharangaon and Erandol to Mahsavad would be preferable.

The distance from Amalner to Jalgaon is 34·36 miles and from Amalner to Mahsavad 31·98 miles; the lead from Amalner to Bombay *viâ* the Erandol and Mahsavad route would be 15·38 miles less than *viâ* the Jalgaon route. On the other hand the Mahsavad route would add 10·62 miles to through traffic from Surat to Jalgaon and stations north of Jalgaon. A survey for the alternative line *viâ* Erandol and Mahsavad has been carried out: it is estimated that the Amalner-Mahsavad Line will cost about three to five lákhs less than the Amalner-Jalgaon Line. Construction work will be commenced as soon as Government finally decide upon the route to be adopted.

The G. I. P. Railway Company have also made a survey for a branch line on the standard gauge to connect Dhulia with Chalisgaon Station, situate on their North-East Line. The line will be about 37·31 miles long and is estimated to cost Rs. 46,02,841 exclusive of Rolling Stock, a mileage rate of Rs. 1,23,365. The plans and estimates are under consideration.

Baroda State Railways.

Vishwamitri-Padra Railway.

In February 1896 sanction was given to the construction through the agency of the B. B. & C. I. Railway Company for the Government of His Highness the Gaekwar from funds provided by the latter, of a branch line on the 2′ 6″ gauge from Vishwamitri Station on His Highness' Dabhoi Railway to Padra, a distance of 7¼ miles; this is a short length of the Vishwamitri-Kanjat line surveyed in 1893-94.

The estimate as finally sanctioned by the Government of India amounted to Rs. 1,86,872, equal to a mileage rate of Rs.26,173 exclusive of rolling stock. The project provided for the running of the extension under the main line of the B. B. & C. I. Railway by means of a subway. Work on the line has been completed since the close of the official year and the line was opened for traffic on the 1st July 1897.

Bahadarpur-Songir Railway.

It was stated in last year's report that revised estimates, amounting to Rs. 4,57,505, had been submitted by the Agent, B. B. and C. I. Railway Company, in June 1895, for the proposed extension of His Highness the Gaekwar's Dabhoi Railway (2′ 6″ gauge) from the station of Bahadarpur to the Songir quarries, also in His Highness's territory, a distance of 9¼ miles. The estimates were sent to the Darbar, who replied in December of that year that the project was held in abeyance for a time.

Nothing further has occurred with regard to it.

Patan viâ *Siddhpur-Kheralu Railway*; *Vijapur* viâ *Kalol Road-Kadi Railway.*

The Baroda Darbar had desired that surveys should be made for branch lines on the metre gauge from Patan *viâ* Siddhpur to Kheralu and from Vijapur *viâ* Kalol Road Station on the Rajputana-Malwa Railway to Kadi.

The surveys were carried out by the officers of the B. B. & C. I. Railway during 1895-96 and the projects in detail were submitted by the Agent in October 1896.

According to the survey, the length of the Railway from Patan to Siddhpur is 17·69 miles, and its cost exclusive of rolling stock Rs. 7,16,286 equal to a mileage rate of Rs. 40,491. The Siddhpur-Kheralu length will be 16·95 miles and its cost Rs. 6,16,055, equal to a mileage rate of Rs. 36,345, also exclusive of rolling stock.

The length from Kalol to Kadi due west of Kalol will be 12·20 miles: it is estimated to cost Rs. 4,95,075, exclusive of rolling stock, equal to a mileage rate of Rs. 40,580. The proposed branch from Kalol *viâ* Randhya and Limbodra to Vijapur on the east of the Rajputana-Malwa Railway will be 29·60 miles in length and its cost exclusive of rolling stock is estimated at Rs. 9,02,547, equal to a mileage rate of Rs. 30,491.

The survey reports with the estimates and plans of these branch lines have been forwarded for the consideration of the Darbar.

As regard the Vijapur-Kalol-Kadi project, the Darbar have just intimated that as there is now no serious distress in the Kadi Division and as several irrigation, drainage and other works of public utility are already in progress in that and other divisions of their territory, they have thought it desirable to hold the question of the construction of this line in abeyance for the present.

Patan-Harj-Chansama-Bechraji Railway.

In connection with the surveys carried out three years ago for lines to connect the Gaekwari towns of Harij and Chansama with the Patan Branch of His Highness the Gaekwar's Mehsana Railway, the Baroda Darbar requested that the B. B. & C. I. Railway Company might be asked to carry out a further survey for extending the proposed line from Chansama to Bechraji, a distance of about 17 miles.

The Agent, B. B. & C. I. Railway Company, has intimated that the survey of the proposed additional length will be taken in hand next cold weather.

Sabarmati-Dholka Railway.

In the report for 1895-96 it was stated that during that year, Messrs Dhunjibhoy Jamsetji Medora and Company of Ahmedabad had applied for a concession for the construction of this line on either the metre or the 2′ 6″ gauge. The applicants had been informed that Government would only consider the matter if the B. B. & C. Railway Company would agree to reasonable terms for the construction, maintenance and working of the line.

Government declared that they view the construction of a metre gauge Railway from Dholka to Sabarmati with favor; that they consider its traffic prospects give good promise of a satisfactory return on the capital expended; and that failing its construction by Government, as a branch of the Rajputana-Malwa Railway, they would be glad to see it made with Rupee capital raised in India.

Meanwhile Messrs. Dhunjibhoy Jamsetji Medora and Company with the help of Mr. Girdharlal Hiralal of Ahmedabad and other gentlemen started the Gujarat Feeder Railway Company. The object of the new Company being amongst other things to acquire the concession for the Sabarmati-Dholka line on the metre gauge.

In October 1896 Messrs. Dhunjibhoy, Trikamlal and Company, the Agents of the Gujarat Feeder Railway Company, submitted a formal application for a concession for the proposed Railway from Sabarmati to Dholka on the metre gauge, the applicants proposing that the line should be constructed and worked through the Agency of the B. B. & C. I. Railway Company on the latest "branch line terms" promulgated by the Government of India.

In November 1896, Messrs. Killick, Nixon and Company of Bombay, applied for a similar concession. These applications are being considered by the Railway Conference assembled at Simla.

On a reconsideration of the subject, the Board of Directors of the B. B. & C. I. Railway Company have expressed themselves prepared to undertake to construct the line for the Company that gets the concession and then to work it on favourable terms.

With the sanction of the Government of India the Agent, B. B. & C. I. Railway Company, had a detailed survey carried out towards the close of the official year for the Sabarmati-Dholka line. The project, as submitted, has two alternative routes:—

(i) from Dholka to Sirkhej *viâ* Bawla, and thence direct to Sabarmati Junction. The length of this line is 31·74 miles and its cost exclusive of Rolling Stock, Rs. 11,71,980, which works out to a mileage rate of Rs. 36,924.

(ii) following the same course as far as Sirkhej and then running direct for the Ellis Bridge at Ahmedabad, thence along the west bank of the Sabarmati to Sabarmati Junction. The length of this route is 33·46 miles and the cost, exclusive of Rolling Stock, Rs. 11,97,966, which works out to a mileage rate of Rs. 35,802.

The District Officers of Government who have been consulted with regard to these alternative schemes, are unanimously in favour of Scheme No. 2, with a Railway Station at the Ellis Bridge, Ahmedabad.

Baroda-Godhra Chord Railway.

In last year's report it was stated that the B. B. & C. I. Railway Company had, under the orders of the Government of India, submitted the detailed project estimate for this line on the broad gauge.

Length of Line.—The distance from Baroda to Godhra *viâ* Anand Junction on the B. B. & C. I. Railway is 71¼ miles. The proposed direct line is only 44·85 miles: the first 25·94 miles of it lie in Baroda territory and the rest in the British district of Panch Mahâls.

Location of Line.—The general location of the line as settled by the survey party is as follows:—

The line takes off from the B. B. & C. I. Railway at old Baroda Station, 0·85 miles north of Baroda Cantonment Station, and follows a northerly course through a well-cultivated and populated tract of country as far as mile 5, near the village of Siswa. Here the line turns and pursues a north-easterly course to mile 24, when the line again turns north to cross the Karad River by a bridge of 5 girders of 60′ feet spans at mile 25¾.

From mile 5 to mile 19, the country is a flat plain of black cotton soil, but from mile 19 to mile 27 it is undulating and several fairly high ridges are crossed. The tract is scantily populated and there is a scarcity of water between miles 19 to 25. A station has been fixed at Pilol, mile 8, and another at Savli Road, mile 15½. This station is near the village of Gangaria, but it is intended to also serve Savli (population 5,900), the head-quarters town of the Savli district, 7½ miles distant on the west. It will also serve the large village of Jharod, 3½ miles to the east.

The line next crosses the Goma River, by 6 girders of 60 feet, at mile 26⅞.

At mile 28, the line turns north-east, and running through a fertile and well populated country, crosses the watershed between the Goma and Bapoi Rivers at mile 36.

A station has been fixed at mile 30⅓ to serve Kalol (population 4,400), the head-quarters of the Kalol district, and the centre of a very fertile tract of country.

At mile 36, the line turns north and, passing through an undulating country fairly well cultivated, crosses the Bapoi River, by 4 girders of 40 feet, at mile 38⅞.

A station has been fixed at mile 38 to serve the villages of Vejalpur (population 2,300) and Beheria (population 2,000). The Mesri River, 5 girders of 40 feet, is crossed at mile 42, and the line finally enters Godhra Station at mile 44·85.

Baroda Junction.—This station will be the Junction, although the proposed chord line really joins the B. B. & C. I. Railway at old Baroda Station, 0·85 miles north of the Junction. The B. B. & C. I. Railway between old Baroda Station and Baroda Junction is laid as a double line and can easily accommodate the new traffic.

At Baroda Cantonment there will be an additional passenger platform to receive the branch traffic, the present passenger platform taking the through traffic. Overbridges will connect the two platforms.

Godhra Junction.—It is proposed to abandon the present station building and to construct a new station building and passenger platform to the south of the line. This will bring the whole of the passenger yard to the south of the line and will enable the traffic lines to be concentrated on the north. An incidental advantage obtained is easier access to the city of Godhra which lies on the south side of the line.

Cost of Line.—The estimated cost of constructing the line, including rolling stock, is Rs. 33,72,664 or Rs. 76,651 per mile.

The project estimate with the report and plans has been forwarded to the Government of India who have intimated that the scheme will be considered at the Railway Conference.

Mauli-Nathdwara Railway.

At the request of the Meywar Darbar, the Agent, B. B. & C. I. Railway Company, had a survey carried out during the year for a branch line of railway on the metre gauge to connect the station of Mauli on the Oodeypore-Chitor Railway with Nathdwara on the north. The proposed branch will be 14·75 miles in length and is estimated to cost, exclusive of rolling stock, Rs. 4,72,898, equal to a mileage rate of Rs. 32,060.

The survey report has, with the estimates and plans, been forwarded for the consideration of the Meywar Darbar.

Nanjangud Railway Extension.

In July 1894 the Agent, Southern Mahratta Railway Company, submitted a proposal to extend the Nanjangud Extension line from Nanjangud Station to

a point half a mile closer to the town in order to make it more convenient for passengers.

The suggestion was approved by the Mysore Darbar who desired that the extension should be carried out at their cost which was estimated at Rs. 24,899. The Darbar also agreed that the work should be carried out through the agency of the Southern Mahratta Railway Company.

The sanction of the Government of India to the construction of this short extension was received towards the close of the official year.

Kurnool Branch Railway.

In the year 1890 the Madras Government and the Southern Mahratta Railway Company raised the question of the expediency of constructing a branch railway on the metre gauge to connect the Kurnool Road Station on the Southern Mahratta Railway with the town of Kurnool on the north, the head-quarters of the Kurnool District in the Madras Presidency.

Under instructions from the Government of India, the Southern Mahratta Railway Company, carried out a survey of the proposed line in 1892.

The length of the line as surveyed was 32 miles and the estimated cost using steel sleepers and exclusive of rolling stock Rs. 11,32,022, equal to a mileage rate of Rs. 35,376.

The survey report, plans and estimates were forwarded to the Government of India, but the proposal resulted in nothing, as the Madras Government reported that there was no chance of the line being financed locally and the Government of India were not in a position to supply the necessary funds.

In December 1896 Colonel J. G. Lindsay, R.E., and Colonel A. J. Filgate, R.E., of London, applied to the Government of India for a concession for the construction of this line upon the "branch line terms" published by the Government of India. The applicants have been informed by the Government of India that the scheme will be considered at the Railway Conference which will assemble in Simla this summer (1897) and that a reply to their application will then be given.

Meanwhile the Agent, Southern Mahratta Railway Company, has pointed out that by using local Pyngadu (Jamba) sleepers instead of steel sleepers, as at first proposed, the estimate of 1892 could be reduced from 11·32 lákhs to 9·88 lákhs, and the mileage rate from Rs. 35,376 to Rs. 30,884. The Agent has also pointed out that the receipts on the branch will probably be much better than were at first estimated.

Bezvada-Masulipatam Railway.

This extension has for some years past engaged the serious consideration of the Southern Mahratta Railway Company.

A survey of this line was carried out in 1891 through the agency of the Madras Railway Company and it was estimated that a sum of Rs. 37½ lákhs, including rolling stock, would be required for the construction of this branch of 50 miles on the broad gauge.

An estimate, which came to 49¼ lákhs, was also prepared for the construction of the branch on the mixed gauge, *i.e.* for running both broad and metre gauge trains.

In 1893, the Southern Mahratta Railway Company addressed the Secretary of State for India in view to their being permitted to construct this line, on the metre gauge, with money raised by debenture bonds on the general security of the income of the Company. The Government of India, however, considered that the matter should be deferred until the effect on the course of trade by the opening of the East Coast Railway was more apparent.

In December 1896 Colonel J. G. Lindsay, R.E., and Colonel A. J. Filgate, R.E., of London, applied to the Government of India for a concession for the construction of this branch also upon "branch line terms." They have been informed that they will receive a reply after their application has been considered by the Railway Conference at Simla.

Dhrangadhra Railway.

His Highness the Raj Saheb of Dhrangadhra is anxious to open out his territory by constructing a railway on the metre gauge from Wadhwan Station on the Bhavnagar-Gondal-Junagad-Porbandar Railway through Sitha, Dhrangadhra and Halwad to Malia.

A preliminary survey of the Wadhwan-Dhrangadhra Section was taken in hand by the Authorities of the Bhavnagar-Gondal-Junagad-Porbandar Railway, in November 1896, the survey of the section from Dhrangadhra to Malia being left for future consideration.

It was at first proposed to utilize the existing cart-road which runs between Wadhwan and Dhrangadhra, and trial levels were taken upon it and a rough estimate of the probable cost arrived at. But this scheme did not commend itself to Government for two reasons; firstly, it was objectionable to have a railway which might have to run trains at a fairly high rate of speed on a road which is the chief, if not the only through, road for that part of the country; secondly, the road being 24 miles in length or nearly two miles longer than the straight line from Wadhwan to Dhrangadhra, the saving in construction of 2 miles of length would discount the advantage that might be gained in the first cost of the line by using the road.

It was considered preferable therefore to align the Railway independently of the road, and His Highness the Raj Saheb concurring with this view, actual survey operations were started in February last.

The country to be traversed is easy, being flat and without rivers of any importance, and the line as staked out by the survey party runs almost straight from Wadhwan to Dhrangadhra.

For the first 7½ miles the line runs through Wadhwan and from mile 7½ to the terminus through Dhrangadhra territory.

The proposed Railway will be 21 miles in length and the estimated cost of constructing it (exclusive of rolling stock which will be supplied by the Bhavnagar-Gondal-Junagad-Porbandar Railway, which will work the new line) is Rs. 6,62,096, equal to a mileage rate of Rs. 31,529.

The Survey Report together with the plans and estimates are now before the Government of India.

Cambay-Petlad Railway.

In 1895, the Divan of the Cambay State suggested for the consideration of Government a proposal to connect the town of Cambay (population 31,390) with Petlad the terminus of His Highness the Gaekwar's Anand-Petlad line, a distance of about 18 miles. The proposed line would run through parts of Gaekwari and British territory and a small portion of the Cambay State.

Government have approved of the necessary surveys being carried out. These will be put in hand by the Agent, B. B. & C. I. Railway Company, this cold weather.

Nadiad-Kapadvanj Railway.

Towards the close of the official year the Gujarat Feeder Railway Company, Limited, of Ahmedabad, submitted an application for a concession for the construction, on the 2′ 6″ gauge, of this Railway, about 28 miles in length, the applicants proposing that the line be constructed through the agency of the B. B. & C. I. Railway Company and worked by that Company.

The application of the Gujarat Feeder Railway Company was forwarded for the consideration and orders of the Government of India. The latter have replied that they await the receipt of the views of the Board of the B. B. & C. I. Railway Company on the project and on the proposals for its construction and working.

Viramgam-Radhanpur Railway.

During the past year the Administrator of the Radhanpur State proposed that a survey should be made for a railway from Viramgam roughly *vid* Mandal, Munjpore and Sami to Radhanpur.

The crossing of the Banas River higher up in its course (i) at Deesa, or (ii) on a line to Pátan would be less costly, and so alternative proposals have been put forward by the Agent, B. B. & C. I. Railway Company, for connecting Radhanpur, either with Deesa or with Patan in preference to Viramgam.

The matter is now under the consideration of Government.

Botad-Barwalla Branch.

A project for a branch line from Botad on the Bhavnagar-Gondal-Junagad-Porbandar Railway eastwards to Barwalla, a distance of about 14 miles, has been sent in by the Manager and Engineer-in-Chief of the Bhavnagar-Gondal-Junagad-Porbandar Railway, to the Bhavnagar State with an enquiry as to whether that State is inclined to take up the scheme.

Veraval-Sasan Branch.

A line from Veraval to Sasan in the Junagad State Gir Forests, chiefly for wood fuel and other forest produce, was, as desired by the Junagad State, surveyed under the instructions of the Manager and Engineer-in-Chief, Bhavnagar-Gondal-Junagad-Porbandar Railway. An estimate has been sent in to the Junagad State by the Manager and Engineer-in-Chief with a report on the country and the route the proposed line will traverse.

Chital-Amreli Branch.

In 1892, the Baroda Darbar asked that a survey might be made for a line of Railway either on the metre or 2′ 6″ gauge from some point near Khijadia on the Bhavnagar-Gondal-Junagad Porbandar Railway *vid* Chalala and Amreli to Dhari in Gaekwari territory, a distance of about 36 miles.

The Manager and Engineer-in-Chief of the Bhavnagar-Gondal-Junagad-Porbandar Railway furnished the necessary information as to the probable cost of preparing a survey and estimates for the proposed line, and suggested that the junction of the proposed branch should be at Chital Station on the Bhavnagar-Gondal-Junagad-Porbandar Railway, as there is no station at Khijadia.

The proposal, however, fell through for various reasons.

In December 1896 the Manager and Engineer-in-Chief, Bhavnagar-Gondal-Junagad-Porbandar Railway, again referred the subject of having a branch from Chital to Amreli (a distance of about 12 miles) to the Political Agent in Kathiawar. Subsequently the Gondal Darbar expressed a desire to construct this branch line, provided all land required was given free. The Baroda Darbar have since asked the Political Agent in Kathiawar to furnish them with plans and estimates for a metre guage line to connect the Bhavnagar-Gondal-Junagad-Porbandar Railway with their town of Amreli, and a survey party has been sent to do the necessary field work in connection therewith.

Palitana Railway.

In 1886, His Highness the Thakor Saheb of Palitana expressed a desire to see Palitana connected with the Bhavnagar-Gondal Railway at Sihor, about 20 miles distant from Palitana. Accordingly, a survey of the proposed line was made by the staff of the Bhavnagar-Gondal Railway, and the estimate of cost of constructing the line which was 17 miles in length amounted to Rs. 5,20,719, equal to a mileage rate of Rs. 30,634 exclusive of Rolling Stock which was to be supplied by the Bhavnagar-Gondal Railway. As, however, funds were not forthcoming for the execution of the work, the project was allowed to drop.

In October 1896, a Syndicate of Ahmedabad submitted to the Government of India an application for the grant of a concession for the construction of a railway on the metre gauge from Songadh Station on the Bhavnagar-Gondal-Junagad-Porbandar Railway to Palitana, a distance of about 15 miles, the applicants proposing that the line, when constructed, should be worked by the administration of the Bhavnagar-Gondal-Junagad-Porbandar Railway.

The proposed scheme, however, does not meet with the approval of His Highness the Thákore Sáheb of Bhavnagar and His Highness the Thákore Sáheb of Palitana, through whose territories the proposed line would pass. The applicants have accordingly been informed by the Government of India that no concession can be granted for the construction of the line.

Barsi Road-Pandharpur-Sangola Railway.

To relieve the distress arising from famine in the Sholapur District, Government decided to have a line of railway on the 2′ 6″ gauge located from Barsi-road via Pandharpur to Sangola, so that the earth-work on this extension might be available as a famine relief work. The line was located by an officer of the Consulting Engineer's Department and the earthwork is in progress. The line is an easy one and no river except the Bhima has to be crossed.

The Barsi Light Railway Company, have recently submitted an application to Government for a concession to extend the Barsi Light Railway from Barsi Road Station to Pandharpur, a distance of 32 miles, the extension to run on the existing alignment. It is understood that if the Company are granted the concession the work done through the Famine Department will be taken over and paid for by the Company at ordinary market rates.

Rajpipla State Railway.

The Rajpipla State Administration are desirous to extend their line from Raj-Pardi to Nandod, the Capital of the State. The Government of India have approved of the proposal generally and the Agent, B. B. & C. I. Railway Company, is now preparing the project. In view of saving very heavy expenditure at the Nandod end, the Darbar wish at present to stop the extension on the Anklesvar side of the Karjan River and to place a temporary station about one mile from that river, thus saving not only the bridge but also a heavy length of construction. The proposed extension is estimated to cost Rs. 6,65,914 exclusive of sleepers which will be supplied by the State.

It has been found necessary to provide employment for the poorer classes, on account of the high prices ruling in the state for food-grains. The Government of India have accordingly sanctioned the earthwork on this extension being commenced. The work is being carried out through the Agency of the B. B. & C. I. Railway Company.

Chapter IV.—Accidents.

(*For the calendar year ending* 31*st December* 1896.)

The following statements shew the number of accidents to trains and the total number of persons killed or injured, on the Railways open for traffic, during the calendar year ending 31st December 1896 as compared with similar figures for the year 1895 :—

A

Number of Persons reported during the twelve months ending 31st December 1896 as killed or injured on the Railways (open lines), under the control of the Government of Bombay, by the travelling of trains or the movement of vehicles used exclusively upon the line, distinguishing between Passengers, Railway Servants and other Persons and classifying as far as practicable the nature and causes of the accidents occasioning death or injury.

| Year. | | | PASSENGERS. | | | | | | | | | | | | | | SERVANTS. | | | | | | | | | | | | | |

B

Accidents to Trains, Rolling Stock, Permanent Way, &c., reported during the twelve months ending 31st December 1896, as having occurred on the Railways under the control of the Government of Bombay, distinguishing the different classes of accidents, and the number of passengers and others and of railway servants killed or injured in each class of accidents.

	During 1896.						
	Number of Train Accidents.	Number of Passengers and Others.		Number of Servants.		Total all Classes.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains or parts of passenger trains	2	...	4	...	3	...	7
2. Collisions between passenger trains and goods or mineral trains, engines and vehicles standing foul of the line	9	...	1	...	1	...	2
3. Collisions between goods trains or parts of goods trains	4	...	...	...	...	...	...
4. Collisions between light engines	6	...	...	...	...	...	...
5. Passenger trains or parts of passenger trains leaving the rails	24	...	...	...	...	...	...
6. Goods trains or parts of goods trains, engines, &c., leaving the rails	42	...	...	...	...	...	...
7. Trains or engines travelling in the wrong direction through points	44	12	21	1	...	13	21
8. Trains running into stations or sidings at too high a speed	16	...	...	...	4	...	4
9. Trains running over cattle on the line ...	610	1	...	...	...	1	...
10. Trains running over obstructions on the line...	83	2	...	...	1	2	1
11. Trains running through gates at level-crossings	18	...	...	...	...	...	...
12. The bursting of boilers of engines ..	...	...	...	...	...	...	...
12A. The bursting of tubes, &c., of engines ...	68	...	1	...	...	...	1
13. The failure of machinery, springs, &c., of engines	250	...	...	...	...	...	...
14. „ „ of tyres	11	...	...	...	...	...	...
15. „ „ of wheels	4	...	...	...	...	...	...
16. „ „ of axles	33	1	5	...	2	1	7
17. „ „ of brake apparatus ...	3	...	...	...	...	...	...
18. „ „ of couplings	113	...	...	...	...	...	...
19. „ „ of tunnels, bridges, viaducts, culverts, &c.	...	...	...	...	...	...	...
20. Broken rails	27	...	...	...	...	...	...
21. The flooding of portions of permanent way ..	51	...	...	...	...	...	...
22. Slips in cuttings or embankments ...	20	...	...	1	2	1	2
23. Fire in trains	59	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	17	...	...	...	...	...	...
25. Other accidents	123	1	4	1	4	2	8
Total of all classes in 1896 ...	1,637	17*	36	3	17	20	53
Do. in 1895 ...	1,526	4†	27‡	...	6	4	33

	1895.	1896.
Mean mileage worked	6,025·97	6,258·43
Train mileage of all descriptions	23,386,586	23,414,744
Number of passengers	46,527,253	49,415,459
Train miles per accident	15,322	15,343
Passengers killed per million	0·04	0·26
„ injured per million	0·45	0·73

* Of these 4 were not passengers. † Of these 2 were not passengers. ‡ Of these 6 were not passengers.

The following statement shows the number of train miles run, the number of accidents, excluding running over cattle, and the average number of train miles per accident on each railway during the year 1896 :—

	Train miles.	No. of Accidents.	No. of Train miles per Accident.
G. I. P. Railway System	10,259,496	368	27,879
B. B. & C. I. Railway, including the Godhra-Rutlam and His Highness the Gaekwar's Petlad Railways	2,812,730	225	12,501
His Highness the Gaekwar's Dabhoi Railway ...	81,640	6	13,606
Rajputana-Malwa Railway System, including His Highness the Gaekwar's Mehsana Railway ...	5,386,130	194	27,763
Southern Mahratta Railway System, including the Mysore State Railway, the Kolhapur State Railway, the Bangalore-Mysore Frontier Railway, the Guntakal-Mysore Frontier Railway, and the Nanjangud Extension	3,638,210	196	18,562
His Highnesst he Maharana of Meywar's Oodeypore-Chitor Railway	47,736	2	23,868
Bhavnagar-Gondal-Junagad-Porbandar Railway, including the Jetalsar-Rajkot Branch ...	594,469	19	31,287
Morvi Railway	164,705	17	9,688

Accidents.

G. I. P. Railway System—(*Standard Gauge*).

(Includes the Wardha Coal, the Dhond and Manmad and the Berars State Railways.)

On the 12th January, some wagons were uncoupled from an engine to which they were attached, and owing to their brakes not being put down, and the road being on a falling gradient, they ran into an Up Passenger which was standing within the distant signal at Karjat Station. No one was injured, nor was the rolling stock or permanent way damaged.

On the 12th February, a collision took place between a Down Passenger and an Up Tranship Train at Kopargaon Station, owing to the points being wrongly set. Two passengers and two railway servants were injured. There was also considerable damage done to the rolling stock and permanent way. The Assistant Station Master and Muccadum, through whose negligence the accident occurred, were prosecuted under the Railways Act, and, on conviction, were each sentenced to thirty days' simple imprisonment and a fine of Rs. 150 ; or, in default of payment of the fine, to a further imprisonment of thirty days.

On the 21st May, while an Up Passenger Train was entering Lonavla Station, a second class carriage was overturned and a composite carriage and a road van derailed, owing to the points of the trap siding having been reversed while the train was passing over them. The rolling stock and permanent way were slightly damaged. No one was injured.

On the 8th June, a collision occurred at mileage 142/19, between Uruli and Yevat Stations, between the Down Mail Train and the rear portion of a Down Goods Train which had parted, owing to the failure of a coupling, from the rest of the train. A native passenger was slightly injured. The permanent way and the rolling stock were damaged. The Assistant Station Master, Yevat, was prosecuted and sentenced to three months' rigorous imprisonment for giving the Mail Train a line clear before the whole of the goods train arrived at his station ; the guard of the Goods Train was also prosecuted and sentenced to a fine of Rs. 200, or, in default, to undergo twenty-one days' simple imprisonment, for not protecting the rear portion of the Goods Train left behind. On appeal, the guard was acquitted.

On the 21st August, seventeen wagons, attached to a Down Pilgrim Special Mixed Train, were derailed (11 seriously) at mileage 360 between Dapki and Akola Stations, owing to the breakage of an axle of a covered wagon, the metal of which was badly flawed. No passengers were injured. The rolling stock and permanent way were badly damaged. The fracture took place within the wheel-seating, and could not have been detected by ordinary examination.

On the 9th September, while an Up Transhipp Train (carrying passengers in the brakes only) was being shunted at Sanwatsar, it was run into by Down Goods Train, owing to the driver not having his train under control, and running past the distant signal at danger. The rolling stock was a good deal damaged and the permanent way slightly. No passengers were injured. The driver of the Down Goods was prosecuted and sentenced to pay a fine of Rs. 200; or, in default, to undergo a month's simple imprisonment.

On the 16th December, four loaded wagons, a brake van and six carriages, attached to a Down Mixed Train, were derailed at mileage 518¾, between Kapri and Nagpur Stations, owing to the breakage of a wagon axle, the metal of which was badly flawed. Six native passengers and the guard were injured; one of the passengers subsequently died. The rolling stock and permanent way were considerably damaged. The fracture took place within the wheel-seating, and could not have been detected by ordinary examination.

B. B. & C. I. Railway—(*Standard Gauge*).

(Includes the Godhra-Rutlam-Nagda and the Nagda-Ujjain Railways and His Highness the Gaekwar's Petlad Railway.)

There were three accidents of a serious nature during the year on this system.

On the 13th May 1896, a collision occurred at Bandra Station between an Up Local Train and a rake of empty carriages. The Up train was started without the starting signal being given with the result that the engine was derailed at the slip points. An empty rake of carriages was being backed into an adjoining siding at the time, the points leading to which were fouled by the derailed engine, the consequence being that the empty rake collided with the derailed engine and several coaches were more or less damaged. Two passengers in the up train and a carriage cleaner were slightly injured.

A fire occurred in a loaded wagon in an Up Goods Train on the 11th June at Panoli Station, resulting in the destruction of the wagon and part of its contents, which consisted of poppy seed, hemp seed and some miscellaneous consignments. The fire is supposed to have been due to the presence of combustible articles in the wagon.

A wagon and eight coaches on a Down Mixed Train were derailed between Unhal and Aslaoda Stations on the Rutlam-Nagda-Ujjain line owing to the failure of an axle-box of a wagon, caused by the uneven state of the road. The permanent way was damaged for a distance of about half a mile.

Rajputana-Malwa Railway System—(*Metre Gauge*).

(Includes the Cawnpore-Achnera, the Palanpur-Deesa, and His Highness the Gaekwar's Mehsana Railways).

On the 21st January 1896, the engine, tender and five wagons of the Up Mixed Mail Train derailed at mile 347-3 between the stations of Barwaha and Mukhtiara. The line was blocked for about 29 hours. All passenger trains had to be transhipped until the block was cleared.

On the 27th January, the engine of a Down Goods Train derailed at Karanpura Station. The line was blocked for about 6½ hours.

On the 8th June, at mile 24-15, between Gurgaon and Gari-Harsaru Stations, the engine of an up Mixed Train ran over a bullock and derailed. The line was blocked for about 9 hours.

On the 24th July a collision took place between the Down Mail and a shunting engine at the entrance of Rajputana-Malwa Railway Goods-yard at Delhi,

owing to the Mail train taking the Goods yard line instead of the passenger yard line, due to the cross-over road not having been altered for the passenger yard line after the passing of the shunting Engine. Three vehicles of the Down Mail were completely wrecked, two others were damaged and two derailed. Twelve passengers and the 2nd Guard of the train were killed. 21 passengers were wounded and sent to hospital. The driver of the train and the head guard also received contusions. The Delhi-Umballa-Kalka Railway was blocked for several hours by the debris of the accident.

Southern Mahratta Railway System—(*Metre Gauge*).

(Includes the Mysore State Railway, the Kolhapur State Railway, the Guntakal-Mysore Frontier Railway, the Yeshvantpur-Mysore Frontier Railway and the Nanjangud Extension.)

On the 16th January 1896, a wagon attached to a Down Mixed Train got derailed at mile 243/11-12 on the Mysore Railway between Closepet and Chennapatna and was dragged to mile 244/13, owing to the failure of the spring in the wagon due to a flaw in the metal. Rolling stock and permanent way were damaged.

On the 30th January, a wagon attached to a Down Mixed Train was derailed at mile 13/11 on the Haribar Branch and dragged to mile 14/1, between Kundgol and Saunshi, owing to its axle having broken, due to a flaw in the metal. Rolling stock and permanent way were slightly damaged.

On the 11th March, while the Up Mixed Train was entering Garladinne Station on the Guntakal-Hindupur line the engine and the first 8 wagons became derailed at the south facing points owing to the points, which were not locked, having been reversed between the second and the third vehicles from the engine. Passengers, &c., of the Up and Down trains were transhipped. A temporary diversion was laid and through communication restored on 13th March 1896. Rolling Stock and Permanent Way were considerably damaged.

On the 17th March, a wagon attached to a Down Goods Train got derailed at mile 99/11½ on the main line between Annigeri and Halkoti Stations and was dragged to the bridge at mile 99/21 owing to the breakage of a defective spring plate of the vehicle coupled with an excessive speed of the train. The wagon was thrown over into the nala and the line cleared. Rolling stock and permanent way were considerably damaged. Passengers, &c., were transhipped on the morning of 18th March 1896. The line was repaired the same day.

On the 19th March, a coupled engine, which was running from Maddur Station, ran into an Up Goods Train standing on the 2nd line foul of the crossing with the third line at Bangalore City Station with the result that two covered goods wagons attached to the train left the rails. The accident was due to the Driver of the Light Engine having disregarded and passed all signals that were against him. The engine and the derailed wagons were much damaged. The Driver was prosecuted and sentenced to undergo one month's rigorous imprisonment.

On the 20th March, whilst an Up Special Goods Train was entering Amargol Station, four wagons attached thereto became derailed at the east facing points, owing to irregular working of the points. Rolling stock and permanent way were considerably damaged. The Assistant Station Master and the Pointsman were prosecuted. The former was sentenced to pay a fine of Rs. 15 and the latter to undergo one month's imprisonment.

On the 21st March an Up Mixed Train, while entering Sattenapalli Station, collided with a rake of wagons that were hand-shunted on the main line outside the points, thus causing the derailment of one of the wagons on the rake. The collision was due to the home signal having been lowered when the train arrived and before the block was removed. Rolling stock was damaged.

On the 27th March, whilst a Down Mixed Train was entering Desur Station a composite bogie carriage attached thereto was derailed near the facing points owing to the tongue rail of the points having left the stock rail to the extent of

about $\frac{3}{8}$ of an inch during the heat of the day, the opening thus caused being sufficient to admit the flange of the wheel of the bogie carriage. None were injured. The carriage and the permanent way were somewhat damaged.

On the same date, while an Up Mixed Train was leaving the platform line at Wathar Station three covered goods wagons carrying passengers were derailed, owing to the goods shed line points having been wrongly set. None were injured, but the rolling stock and permanent way were damaged.

On the 11th April, while an Up Mixed Train was leaving Nanjangud Station, it ran from the platform line into the goods-shed line and collided with a wagon standing on the latter line, owing to the main line points being wrongly set for the goods-shed line. Fortunately none were injured, neither was there damage of any kind.

On the 15th May, the front Brake Van on the Up Mail became derailed at north points at Rahimatpur Station, owing to the points not having been locked. The rolling stock and permanent way were damaged.

On the 12th June, a wagon attached to an Up Mixed Train was derailed at Londa Station, owing to the binding chain of a Timber wagon having slipped from the truck and got under the wheels of the derailed wagon which was in rear of the truck. None were injured but the rolling stock and permanent way were slightly damaged.

On the 13th July, the tender of the engine and seven wagons attached to an Up Goods Train were derailed at Malliyala Station, blocking the main line which was, however, cleared the same day. The derailment was due to the points having been reversed after the engine, tender and a wagon had passed over them. Rolling stock and permanent way were badly damaged. The Station Master and the Pointsman were to blame for the accident; they were suitably punished.

On the 14th July, a collison took place at Belgaum Station between 33 Up and 44 Down Mixed Trains. The Driver of the Down train and the Assistant Station Master were prosecuted, the former for running his train, at an excessive speed, past the distant signal while set against him, and the latter for directing shunting to be continued at that end of the yard at which he knew that 44 Down train was about to arrive. The Driver was fined Rs. 150 and the Assistant Station Master Rs. 75. The Driver of the Up train and the 2nd fireman of the Down train and the shunting Porter were slightly injured. Passengers were transhipped: the line was cleared the same day. Rolling stock and permanent way were damaged.

On the 23rd August, a wagon attached to an Up Mixed Train got derailed at mile 93-3 on the main line between Annigeri and Dundur, and was dragged for about 2,000 feet. The accident was due to bad loading of rails and movement of the load in transit. Rolling stock and permanent way were damaged.

On the 10th September, a wagon attached to an Up Mixed Train got derailed at mile 168-3 on the main line between Haspet and Papinyakanahalli, and was dragged to mile 167-20, owing to the breakage of the leading axle of the vehicle, due to a flaw in the metal. Rolling stock and permanent way were damaged.

On the 15th September, eight wagons, one 3rd class brake and a road van attached to an Up Mixed Train were derailed and four of them capsized at mile 41-2, between Alnavar and Kambarganvi, owing to the breakage of the spring in one of the wagons, due to a flaw in the metal. The Brakesman of the train sustained slight injury. Rolling stock and permanent way were damaged. Passengers, &c., were transhipped. The line was cleared the following day.

On the 13th October, the engine of an Up Mixed Train ran down the slope of the bank (about 3 feet high) at mile 90-23 on the main line between Annigeri and Dundur, and stuck in a half capsized state in the black soil, while 13 vehicles became derailed, owing to the spikes for $1\frac{1}{2}$ rails and fish plates for two joints having been removed by three gang coolies. They were prosecuted

and each was sentenced to three years' rigorous imprisonment. None were injured, but the rolling stock was considerably damaged.

A very serious and fatal accident occurred at Phursangi at 1-40 hours on the 28th October. An Up Goods Train consisting of an engine, water-tender and 46 vehicles had come to a stand-still at the Alandi Station, the five rear vehicles being on a falling grade of 1 in 100. While the engine was removing the water-tender the remainder of the train escaped and ran back to Phursangi, colliding with a Down Special Train standing on the main line at that station. The Chief Guard of the Down special sustained serious injuries from the effects of which he expired subsequently. Rolling stock was considerably damaged. The staff to blame have been dismissed the Company's service.

On the 29th October, an Up Transhipment Train, instead of being admitted on to the platform line, was received on the main line at Alandi Station, owing to the points not having been properly set, with the result that the train collided with a Down Special Goods Train standing on the main line close to the fouling point of the crossing at the north end of the station. There was slight damage to rolling stock. The Assistant Station Master responsible for the collision has been prosecuted.

ODEYPORE-CHITOR RAILWAY—(*Metre Gauge*).

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

(Includes the Jetalsar-Rajkot Railway.)

MORVI RAILWAY—(2′ 6″ *Gauge*).

HIS HIGHNESS THE GAEKWAR'S DABHOI RAILWAY—(2′ 6″ *Gauge*).

There were no accidents of a serious nature on these lines during the year under report.

Flood Damages.

GREAT INDIAN PENINSULA RAILWAY SYSTEM—(*Standard Gauge*).

(Includes the Wardha Coal, the Dhond and Manmad and the Berar State Railways.)

On the 19th June, about 40 tons of rock fell from the side of the cutting about 100 feet on the Khandala side of No. 24 Tunnel, Bhor Ghat. Probably the slip was accelerated by the heavy rainfall at the Reversing Station, but disintegration was the primary cause of the slip. The rock fell in front of a Down Goods Train, rendering it necessary to work single line for a time.

On 22nd June, part of the down side No. 2 wing of the 10 feet arch, at 43 miles 15 chains, South-East Line, was washed out by flood. Rubble stone was worked to the spot immediately and thrown into the gap and a dry rubble wall subsequently built.

On 24th July, a scour was caused by heavy flood behind the down wing of No. 1 abutment of the 8-60 ft. girder bridge, at mileage 501·55 Nagpur Line. It was at once filled with stone by ballast train. The flood rose to within 8′ 6″ of rails.

On 24th July, the No. 2 abutment wall of the 2 feet covered culvert at mileage 426·36, North-East Line, fell in under the road, causing the earth and ballast to sink away, leaving 3 or 4 pots suspended. The road was quickly repaired and the traffic over the place restored, the Up and Down mixed trains were detained $3\frac{1}{4}$ and $1\frac{1}{4}$ hours respectively. Rail girders have been put in over the culvert. The culvert will be rebuilt before next monsoon.

On 26th July, owing to heavy rain, the following washaways occurred on the Campoli Branch :—

At mileage 65, ballast was washed out of pots for a length of three rails.

At mileage $68\frac{1}{2}$, the bank was washed away for a length of three rails and to a depth of 3 feet below rails, and for a further length of ten rails, the ballast was washed from the pots.

At 69 miles 50 chains, the bank was washed away for a length of 66 feet on one side of the line to a depth of about 8 feet, and on the other side nearly 16 feet below rail level.

The necessary repairs were carried out before the re-opening of the branch for traffic in October.

Owing to the heavy rain which fell on the night of the 24th and morning of 25th July, the line was breached at 206½ mileage on North-East Line for a length of about 150 yards.

At 221 mileage, the Up road was breached for a length of 240 feet to a depth of 4 feet below rails, and the Down road for about 500 feet below rails. Single line working was established at both the mileages on the 26th and double line working was resumed at 206½ on the 27th, and at 221 mileage on the 31st, rain having considerably hampered the work at the latter mileage.

The damage at 221 mile was due to a high flood in the Tetoor Nala (crossed by 12-40 feet arches at 220-45) which runs parallel with the line for some distance. The four villages alongside the Nala were all more or less destroyed by the flood, and the wreckage from them was desposited along the bank west of the bridge.

On the night of 29th July, heavy floods occurred on the North-East Line, between 34 and 50 miles; the rails were submerged at certain places along this distance. The bank at 36½ miles was overtopped and washed away for about 2 rails' length to a depth of about 3 feet. It was made good at once with rubble stone.

On 30th July, there was a slip in the bank behind the abutment of the Bhima Viaduct on the Dhond and Manmar Line, but it was soon repaired, and the traffic, which was for a time suspended, was resumed.

On the night of 30th July the Bhima River was in very high flood and rose to 10 feet below rail level at the Viaduct.

The river extended far over its banks and the line was slightly injured by the back water at the following places :—

167¾ ms. to 168½ ms.—Slopes scoured and slipped and cess subsided a few inches.

185 ms. 20 chs.—Close to bridge—Slopes badly cracked and a large wedge-shaped piece slipped out. Slopes on up side from 184¾ to 185¼ scoured.

192-19—Bank sunk an inch or two.

195½ to 196—Slope on up side scoured away badly.

202-75—Bank subsided a little drawing road out of line.

Traffic over the bridge had to be stopped on account of the slip in the bank at 185-20 which was made good on the 31st.

The flood was about 6 ft. higher than that of 1894, which again was higher than any flood known during the previous 23 years.

Owing to heavy and continuous rainfall, the Dudhi River at mileage-522-16, North-East Line, was in high flood on the 3rd of August, having risen to a height of 8 feet below rail-level at 523 miles, overflowing its banks and covering the low-lying ground on the up side of the line for a large area and to a considerable depth. With the cessation of rain during the night of 3rd and morning of 4th, the flood subsided when the damage was made good.

On the night of 24th July, there being exceedingly heavy rain on the Bhor Ghát, the road was in places rendered temporarily unsafe or obstructed, and

traffic was suspended till daylight. Clearances and repairs were rapidly effected and the delayed trains were passed on.

Between 42¾ and 44½ miles South-East Line, the line was breached in several places. At 42¾ miles for about 540 feet, the ballast and bank 4 feet deep had been scoured out and at 44½ miles gaps of 270, 120, 105 and 195 feet varying from 5 to 8 feet deep. Repairs having been effected, single line working was established on the 27th of July.

The breach at 44½ mile was caused by the accumulation of a large body of storm water on the south side of the line which eventully overtopped the bank and made its way through it to the river Ulhas on the north side of the line.

Between Wasind and Asangaon owing to the sinking of the bank at mile 49·92, single line had to be worked.

By the evening of the 28th, the damages on the South-East Line had been almost completely repaired, but during the night, rain fell so heavily and continuously that a heavy flood resulted and the line was again breached in the same places, and greater damages done than on the first occasion. The Up line was finally repaired and opened for slow traffic on the afternoon of 31st July.

On the evening of 1st August, the Down line was sufficiently repaired to take the ballast train over all the breaches at a slow speed, and on the 2nd the repairs were completely ready.

On the night of Wednesday the 29th, a flood of enormous volume rose in the neighbourhood of Kalyan and Diva, the level reached by the flood (2 feet 6 inches above the rails) being the highest known for 30 years back. The Diva bank was partly submerged, and to the east of Kalyan the water rose over the line in many places.

Between mile 34¼ and 35¼, the flood rose so much above the rails that traffic became impossible and had to be entirely suspended by midnight.

At daylight the flood was found to have risen still higher. The flood gradually subsided and the Valdavi bridge, which had been completely submerged, was found to be safe and the heavy bank quite uninjured, but the line was breached in two places at 36 miles 28 chains, about 100 feet of the bank having been carried away.

The breaches of the line by flood, between Badlapur and Wangni having been fully investigated, it is proposed to provide a double 30-feet girder bridge at 44 miles 45 chains.

On the 13th of August, the second pier of the bridge of 6 spans of 78 feet girders crossing the Dudhi river at 522 miles 16 chains on the North-East Line, completely failed through being under-scoured.

Immediately after the accident the ground was examined, arrangements were quickly decided on, and a diversion 1,553 yards in length with a maximum gradient of 1 in 75 was laid out and put in hand.

Rapid progress was made, when, on 27th August, a very heavy flood occurred which carried away the incomplete temporary bridge and did extensive damage. Directly the state of the river permitted, a fresh start was made, very nearly the whole of the material was recovered and the work pushed on with such energy that, on 7th September, the diversion was opened and through traffic restored.

The temporary bridge is 460 feet in length carried on 6 trestles and 14 sleeper cribs, and ably resisted all floods that occurred up to the end of the rains.

Cholera made its appearance, but the prompt measures taken checked the disease on the works; there being only three fatal cases although many deaths took place in the adjoining villages.

The damaged girders and pier have been removed. The former are being repaired and the latter is being reconstructed with two iron cylinders 9 feet in diameter. Protective works for the other piers have also been put in hand.

B. B. & C. I. Railway System—(*Standard Gauge*).

(Includes the Godhra-Rutlam-Nagda and the Nagda-Ujjain Railways and His Highness the Gaekwar's Petlad Railway.)

On the night of the 23rd July 1896, a gap, nearly 1,600 feet in length, was caused by the flood waters and high tide in the Vaitarni river at bridge No. 90, mileage 43. Passengers were crossed in boats. The road was restored for trains on the 1st August.

On the 26th July, the flood rose to within 4 feet of the highest record in the Tapti river. Trains were prohibited from crossing the bridge from the morning of the 26th to the morning of the 27th July.

The north abutment of culvert No. 472 collapsed on the 27th July. There was however no detention to traffic.

Owing to floods in the Mahi River near Sevalia, trains were prevented from crossing the low-level bridge on the 31st July, 2nd August, 6th August and 17th August 1896.

On the Rutlam-Nagda Section of the Godhra-Rutlam Railway, traffic was suspended from the 14th to the 19th August 1896, owing to the approaches of the major bridges having sunk on account of the bank being new.

On the Nagda-Ujjain Section of the abovenamed Railway, traffic was suspended from the 4th to the 19th August owing partly to the drains of some of the cuttings between miles 155 and 171 having become choked by the heavy rainfall, as also to the ballast having been washed away in various parts, and to the approaches to bridges and culverts having subsided.

Rajputana-Malwa Railway System—(*Metre Gauge*).

(Includes the Cawnpore-Achnera, the Palanpur-Deesa, and His Highness the Gaekwar's Mehsana Railways.)

On the morning of the 15th July 1896, the line between Rajgarh and Bandikui Stations was badly breached in several places between miles 125-9 and 130 15. Two large tanks adjacent to the line burst their bunds and the sudden rush of a large volume of water against the banks of the line caused the breaches referred to. The rainfall registered at Bandikui that morning between 8-30 and 10-15 A.M. was just over 5 inches.

Southern Mahratta Railway System—(*Metre Gauge*).

On the 14th June 1896, owing to heavy rain, the ballast under sleepers was washed away for a length of about 30 feet at mile 409-13, on the main line, between Markapur road and Gajjalakonda Stations. The engine of an Up Goods Train derailed at the spot owing to this washaway and rolling stock was damaged. The breach was restored the following day.

Owing to heavy rain on the 8th October, the ballast at mile 108/8-14, between Nidvanda and Hirehalli, on the Mysore State Railway, was washed away from under the rails. The line was restored in about five hours.

On the same date, the north abutment of the 12 feet arched bridge at mile 182-20, between Nidvanda and Dodbeli, Mysore State Railway, was scoured out by a heavy flood and sank about 2 feet, the arch being badly cracked. Temporary cribs and rails were put across the bridge and through communication was restored on the 9th idem. A temporary diversion was opened on the 13th October and trains were passed over it.

ODEYPORE-CHITOR RAILWAY—(*Metre Gauge*).

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

(Includes the Jetalsar-Rajkot Railway.)

These lines did not suffer any damages through floods during the year under report.

MORVI RAILWAY—(2′ 6″ *Gauge*).

Heavy fall of rain on the 22nd June 1896 breached the line in five places. The biggest breach was of 1,500 feet between miles 15 and 16. There was also one of 500 feet between miles 14 and 15. The other breaches were between miles 24 and 25, 40 and 41 and 41 and 42.

All these gaps were repaired at once.

HIS HIGHNESS THE GAEKWAR'S DABHOI RAILWAY—(2′ 6″ *Gauge*).

This line did not suffer through floods during the year.

Chapter V.—Stores and Rolling Stock.

(*For the calendar year ending 31st December 1896.*)

GREAT INDIAN PENINSULA RAILWAY—(*Standard Gauge*).

The stores balance on 31st December 1896 amounted to Rs. 39,20,182 inclusive of a sum of Rs. 59,327 representing value of stores in transit. The following are the principal items making up that balance:—

	Rs.
Permanent-way Materials	7,63,010
Engines, Locomotive and Stationary, &c. ...	5,58,247
Metals	7,20,338
Fuel	7,24,806
Rolling-stock	2,48,587
Station Materials	1,23,452
Timber	1,39,082
Bridge-work and Fittings	53,643
Stationery	70,323
Tools	52,265
Oil, Tallow, waste, varnishes, &c.	55,016
Miscellaneous	3,52,086
	38,60,855
Stores in transit	59,327
Grand Total ...	39,20,182

The value of consignments received from England during the year amounted to Rs. 22,69,439, while stores to the value of Rs. 38,13,756 were purchased locally. The issues of the year were:—

	Rs.
To construction account	4,10,080
To Revenue account	56,77,509
Sales, &c.	11,50,120

The decrease in the stores balance during the year was Rs. 11,54,514. This is made up principally of decreases in the balances under the heads engines, rolling-stock, metals and permanent-way materials.

The Surplus Working Stock at 31st December 1896 amounted to Rs. 1,52,868 and Obsolete Stock to Rs. 2,69,220, and sales to the extent of Rs. 1,67,375 have since been sanctioned. During the year, Rs. 175,669 on account of Obsolete Stores were written off to Revenue under arrangements approved of by the Board and Government.

The state of the Rolling-stock of the line on the last day of the year was as under :—

	Total Stock.	Undergoing or awaiting repair or renewal.	In actual running order.
Locomotives—			
Passenger, ordinary	110	25	85
Goods	379	73	306
Incline, special	74	12	62
Tank	42	10	32
Total, Locomotives ...	605	120	485
Coaching Vehicles—			
First Class, ordinary	90	7	83
Composite, First and Second Class, ordinary ...	66	4	62
Do. Second and Third do. ...	2	1	1
Second Class, ordinary	155	23	132
Do. with postal accommodation ...	22	4	18
Third Class without brakes, ordinary ...	526	58	468
Do. do. ambulance ...	29	3	26
Third Class and brake-vans	108	6	102
Compound Third Class incline vans	1	...	1
Postal vans	7	1	6
Prison vans	6	...	6
Carriage trucks	50	...	50
Horse boxes	93	6	87
Luggage vans	90	2	88
Brake-vans	541	38	503
Total, Coaching Vehicles ...	1,786	153	1,633
Goods Vehicles—			
Covered goods wagons, ordinary, iron ...	804	67	737
Do. do. wooden	3,591	258	3,333
High-sided wagons, bogie, iron	50	9	41
Do. do. ordinary, wooden ...	254	30	224
Low-sided do. do. iron	1,175	19	1,156
Do. do. do. wooden ...	1,683	250	1,433
Pilot wagons	25	...	25
Powder vans	18	1	17
Timber trucks, iron	24	...	24
Do. do. wooden	167	20	147
Travelling water tanks	12	1	11
Do. gas-holders	8	...	8
Do. mineral oil tanks	5	...	5
Do. cranes	47	3	44
Total, Goods Vehicles ...	7,863	658	7,205

The numbers of locomotives and vehicles repaired and renewed during the year were as under :—

		First-half.	Second-half.	Total.
Locomotives	Repaired	181	160	341
	Renewed	13	12	25
Coaching vehicles	Repaired	962	975	1,937
	Renewed	41	40	81
Goods vehicles	Repaired	3,670	3,556	7,226
	Renewed	136	124	260

Of the total number of vehicles on the line, the following are adapted to military purposes :—

Fitted for ambulance purposes ...	29 Third Class carriages.	
Fitted with hooks or racks for rifles ...	55 Second do.	do.
	66 Third do.	do.
Horse boxes capable of carrying 3 horses each	93	
Covered goods wagons adapted for carriage of 8 horses or 10 ponies each ...	1,506	
Covered goods wagons suitable for the carriage of 6 horses or 8 ponies each ...	375	

The Rolling Stock on the line fitted with brakes stood thus at the close of year :—

	Vacuum Automatic.	Simple Vacuum.	Steam.
Locomotives	165	198	15
Vehicles	1,165	...	...

The whole of the Coaching Stock is fitted with screw couplings at both ends. Goods vehicles are fitted with those couplings at one end only and 4,407 was the number of goods vehicles so fitted at end of the year.

During the year 395 vehicles were fitted with Pintsch's gas, making a total of 798 at the end of the year.

In addition to the Rolling-stock of the line detailed in the foregoing paragraph, the Company possesses a $\frac{7}{16}$th share in the undermentioned East Indian and G. I. P Railways Joint Stock employed in the through service between Calcutta and Bombay :—

First Class carriages	8
Second do. do.	8
Luggage vans	8
Mail vans...	12
Total ...	36

DHOND AND MANMAD STATE RAILWAY—(*Standard Gauge*).

On 31st December 1896, the stores balance stood at Rs. 12,072 or Rs. 49,005 less than the balance at end of 1895 as shown below :—

	Rs.
Balance on 31st December 1896	12,072
Do. do. 1895	61,077
Decrease ...	49,005

During the year debits were received to the extent of Rs. 1,746 on account of balance of sea freight and other incidental charges on fencing materials received from England during the previous year, and a credit of Rs. 2,269 was afforded by the State Railway Stores Department owing to the actual rate of exchange obtained from the Secretary of State's drawings in India being more

favourable than was estimated. The issues to works during the year, which consisted entirely of fencing materials, amounted to Rs. 48,483.

THE BERAR RAILWAYS—(*Standard Gauge*).

On the 31st December 1896 the balances were as under :—

	Rs.
Khamgaon State Railway	453
Amraoti State Railway	6,387

During the year stores to the extent of Rs. 205 were sold to the G. I. P Railway, and the proceeds credited to the Capital Account of the two lines in the proportion of Rs. 29 to the former and Rs. 176 to the latter railway.

The stores on these lines consist entirely of permanent-way materials which are in the custody of the G. I. P. Railway Company, who are authorized to use them when required. The value of stores thus used for their own purpose is recovered from the Company and credited to the Capital Accounts of the Railways. In the case of the Khamgaon Railway the stores being obsolete have all since been sold in the market and realized Rs. 196.

WARDHA COAL STATE RAILWAY—(*Standard Gauge*).

There is no Stores account on this railway.

B. B. & C. I. RAILWAY—(*Standard Gauge.*)

The Stores accounts closed on 31st December 1896 with a balance of Rs. 37,33,986, or Rs. 10,15,245 more than the balance at close of 1895, as shown below :—

	Rs.
Balance on 31st December 1895	27,18,741
Do. do. 1896	37,33,986
Increase in 1896 ...	10,15,245

The transactions of the year 1895 were as follows :—

	Rs.	Rs.
Receipts—		
English stores	28,28,667	
Indian do.	34,73,007	
		63,01,674
Issues—		
On Capital account	15,45,809	
„ Revenue account	26,77,389	
„ Sales, &c.	10,63,231	
		52,86,429
Net Increase as above ...		10,15,245

The increase was principally due to large receipts of permanent-way material for doubling the line and the shipments in transit on 31st December 1896. There was an increase of Rs. 3,36,423 under fuel and was due to quantities of English and Singareni coal received in the later part of the year for consumption in 1897.

The principal items making up the balance on hand on 31st December 1896 were as under :—

	Rs.
Bridge work	6,37,415
Permanent-way materials	3,40,654
Rolling stock	5,35,655
Station materials and fencing	55,692
Metals	2,04,547
Timber	70,135
Fuel	7,31,278
Miscellaneous...	75,302
Stores in the hands of Permanent Way Inspectors and Locomotive Foremen	73,517
Stores in transit from England	3,75,150

The rolling stock on 31st December 1896 consisted of the following:—

	Total Stock.	Undergoing or awaiting repairs or renewals.	In actual running order.
Locomotives—			
Passenger, ordinary	33	2	31
Goods	98	22	76
Tank	3	...	3
Local Traffic	12	3	9
Passenger and goods, mixed	19	...	19
Total, Locomotives ...	165	27	138
Coaching Vehicles—			
Saloons	11	...	11
Reserved Carriages	7	...	7
First Class	8	1	7
Composite, First and Second	29	...	29
Second Class	41	2	39
Intermediate Class	22	5	17
Intermediate and Postal	3	...	3
Third Class	285	40	245
Third and Postal	4	...	4
Mail vans	2	2	...
Luggage vans	16	2	14
Brake vans	28	4	24
Carriage trucks	4	...	4
Horse-boxes	15	2	13
Total, Coaching Vehicles ...	475	58	417
Goods Vehicles—			
Covered goods wagons	2,233	188	2,045
High-sided wagons	910	56	854
Low-sided wagons	574	5	569
Miscellaneous open wagons, military type ...	150	9	141
Pilot wagons	13	...	13
Salt wagons	150	1	149
Powder vans	6	...	6
Six-wheeled trucks	102	2	100
Timber trucks	60	11	49
Travelling oil tanks	3	...	3
,, ,, water tanks	15	2	13
Accident cranes	4	...	4
Brake vans	66	10	56
Total, Goods Vehicles ...	4,286	284	4,002

Of the above, the following are adapted for military purposes:—

Fitted for ambulance purposes	15 third class carriages.
Fitted with hooks or racks for rifles ...	4 composite. 22 intermediate class. 108 third class.
Horse-boxes capable of carrying six horses each.	15
Covered goods wagons adapted for the carriage of horses.	1,653 wooden wagons.
Open goods wagons suitable for the carriage of artillery.	51 high-sided wagons. 501 ballast or low-sided wagons.

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The following are the principal additions and alterations, &c., during the year :—

Additions—

3 new passenger Engines were added out of the 10 sanctioned in Government of India No. 114—R. S., dated 15th April 1895.
5 passenger Engines were renewed during the year.
1 accident travelling-crane for Godhra-Rutlam Railway.
2 luggage vans.

Reduction—

5 Passenger and Goods Engines were condemned and taken off stock.

Alterations—

1 Saloon carriage was altered to reserved saloon.

HIS HIGHNESS THE GAEKWAR'S PETLAD RAILWAY—(*Standard Gauge*).

The stores balance on 31st December 1896 stood at Rs. 9,735 and the following were the principal items :—

	Rs.
Rails, steel	... 2,337
Sleepers, steel	... 6,327

There is no rolling stock on this line, as it is supplied by the Bombay Baroda and Central India Railway.

GODHRA-RUTLAM-NAGDA RAILWAY—(*Standard Gauge*).

The Stores account of the Godhra-Rutlam section has been closed without balance; that of the Rutlam-Nagda section will shortly be closed. The stores balance on 31st December 1896 was Rs. 97,672, made up as under :—

	Rs.
Purchases	... —713
Sales	... 9
Stores	... 77,890
Stores in transit	... 13,808
London stores	... 6,678
Total	... 97,672

NAGDA-UJJAIN RAILWAY—(*Standard Gauge*).

There is no Stores account on this line which is worked by the B. B. & C. I. Railway.

RAJPUTANA-MALWA RAILWAY SYSTEM—(*Metre Gauge*).

The Store balances of the Rajputana-Malwa Railway on 31st December 1896 compare with those on 31st December 1895, as under :—

	1896.	1895.	Difference.	
			Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
Purchases	—65,543	—1,42,544	...	—77,001
Sales	24,209	1,52,480	...	1,28,271
Stores, general	23,08,577	26,28,594	...	3,20,017
Stores, Stationery and Forms ...	94,773	1,11,437	...	16,664
Stores in transit	—15,470	49,467	...	64,937
Stock-adjusting account	—13,108	—13,434	...	—326
Stock-taking...	—626	—626	...	...
Stores, Locomotive	19,53,917	19,88,443	...	34,526
London stores	20,649	1,70,533	...	1,49,884
London invoices	—7,783	25,531	...	33,314
Manufacture	—353	—312	—41	...
Workshop manufacture	12,428	29,709	...	17,281
Total ...	43,11,670	49,99,278	—41	6,87,567
Net Decrease ...	.....	.....	...	6,87,608

Purchases.—The decrease is due to less stores having been purchased during the year 1896.

Sales.—The large debit balance at end of December 1895 is due to unadjusted bills.

Stores, general.—The decrease is due to heavy withdrawals from stock, sales to outsiders, and depreciation written off.

Stationery and Forms.—The decrease is due to obsolete forms and books having been written off during the year.

Stores in transit.—The decrease is due to fewer items having remained outstanding at the end of 1896.

Stock-adjusting and stock-taking account.—The difference is small and calls for no remark.

Locomotive Stores.—The decrease is due to a smaller amount of stores having been drawn from general stock than in the previous year.

London Stores.—The decrease is due to less payments having been made during the year.

London Invoices.—The credit balance is due to stores received from England which were not paid for during the year.

Manufacture accounts.—The increase under this head is small and calls for no remark.

Workshop Manufacture Accounts.—The decrease is due to a reduction in the balance of uncompleted orders, and to a smaller number of bills outstanding at the end of 1896.

Details of the differences between the general books and priced stores ledgers at 31st December 1896 are given below :—

Dr. *Cr.*

Particulars.	Amount.			Particulars.	Amount.		
	Rs.	a.	p.		Rs.	a.	p.
Gain on stores sold	4,094	0	0	Loss in verification	4,522	12	0
Stock-adjusting account ...	13,108	6	5	Loss on stores scrapped ...	7,458	13	1
Stock-taking account ...	626	2	0	Book value of stores auctioned and written off the stores price ledgers the sale account of which is awaiting adjustment	30,483	4	0
Total difference between general books and priced stores ledgers	96,972	14	10	Value of unused material in hands of Engineers written back from Revenue in General books on 31st December 1896	34,918	0	0
				Value of stores paid for and debited in General books but not brought on to Store ledgers as the material was in transit	51,778	1	0
				Minor differences	845	6	0
				Difference between Locomotive books and Account current	265	5	2
				Stores in transit	—15,470	2	0
Total ...	1,14,801	7	3	Total ...	1,14,801	7	3

The rolling stock on 31st December 1896 was as under :—

	Total Stock.	Undergoing or awaiting repairs or renewal.	In actual running order.
Locomotives—			
Mail, special	34	7	27
Passenger, ordinary	110	18	92
Goods	268	55	213
Local traffic, shunting and ballast	29	6	23
Total, Locomotives ...	441	86	355
Coaching Vehicles—			
Saloons, State	6	1	5
Inspection	11	1	10
First Class	124	17	107
Composite, First and Second Class	46	3	43
Second Class...	95	11	84
Composite, Second and Third Class	7	1	6
Intermediate Class	50	2	48
Intermediate and Postal	8	...	8
Composite, Intermediate and Third Class ...	25	1	24
Third Class	770	28	742
Third Class and Postal	16	...	16
Brake vans and Postal	8	3	5
Luggage vans	31	2	29
Miscellaneous	7	...	7
Carriage trucks	38	...	38
Horse boxes	82	1	81
Brake vans	274	15	259
Total, Coaching Vehicles ...	1,598	86	1,512
Goods Vehicles—			
Covered wagons, ordinary	3,871	139	3,732
Do. bogie	415	43	372
High-sided wagons, ordinary	134	29	105
Medium-sided wagons	150	1	149
Low-sided wagons, ordinary	1,213	44	1,169
Do. bogie	1,180	9	1,171
Powder vans	35	3	32
Accident vans	15	1	14
Timber trucks	79	3	76
Store van	1	...	1
Oil tank wagons	8	...	8
Travelling cranes	29	...	29
Total, Goods Vehicles ...	7,130	272	6,858

Of the above the following are adapted for military purposes :—

Fitted for ambulance purposes ...	5 Third-class carriages, ordinary. 21 do. do. bogie.
Fitted with racks for rifles ...	2 Composites, first and second class. 2 Second class. 8 Intermediate class. 7 Composites, intermediate and third-class. 135 Third class, ordinary. 48 do. bogie. 16 Combined third class and Post Office vans.
Horse boxes capable of carrying 4 horses each	82
Covered goods wagons adapted for the carriage of horses	100 wagons carrying each 6 C. B. horses, 10 ponies or mules. 100 wagons carry each 4 waler horses, 6 C. B. horses, 10 ponies or mules.

High-sided wagons adapted for the carriage of horses	134 wagons carrying each 9 ponies or mules.
Open goods wagons suitable for the carriage of artillery	1,944 ballast or low-sided wagons.

Two A and three E class engines have been sold to the Mombassa-Uganda Railway, while the following alterations have been made in the number of coaching and goods vehicles :—

Coaching vehicles—		
17	Third class, bogie built, under the sanction conveyed in Bombay Government Resolutions Nos. 234 and 2732 of 1895	+17
8	Third class ordinary condemned and replaced by combined third class and Postal vans ...	...
4	Third class converted into Prison vans ...	...
8	Brakevans and Postal transferred to the head "Brake vans"	...
	Net Increase ...	17
Goods vehicles—		
40	Steel covered Goods wagons, bogie, 2, 26′ and 38, 29′ with Brake compartment—constructed in lieu of 80 covered goods wagons 14′, wooden, condemned.	—40
25	Low-sided wagons ordinary sold to the Mombassa-Uganda Railway	—25
2	Low-sided wagons broken in an accident have been replaced by two iron covered goods wagons 14′, ordinary	...
	Net Decrease ...	65

PALANPUR-DEESA RAILWAY—(*Metre Gauge*).

H. H. THE GAEKWAR'S MESHANA RAILWAY — (*Metre Gauge*).

There are no stores on these lines, which are worked by the Rajputana-Malwa Railway with its own rolling stock.

ODEYPORE-CHITOR RAILWAY — (*Metre Gauge*).

This line has been constructed by the Meywar Darbar and was opened for traffic on the 1st August 1895. It is being temporarily worked by the Rajputana-Malwa Railway. Information as regards the stores transactions of the line during the year is not available.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre Gauge*).

The Stores transactions for the year under report were as follows:—

	Rs.	Rs.
Balance on 1st January 1896—		
Southern Mahratta, Mysore State and Bellary-Kistna Railways	19,21,770	
Bangalore-Hindupur Railway	33,531	
		19,55,301
Receipts during the year		18,64,772
Total ...		38,20,073
Issues during the year		17,34,858

	Rs.	Rs.
Balance on 31st December 1896		
Southern Mahratta, Mysore State and Bellary-Kistna Railways	20,84,339	
Bangalore-Hindupur Railway	876	
		20,85,215

(There are no stores on the Guntakal-Mysore Frontier, the Kolhapur State and on the Nanjangud Extension Railways.)

The principal items making up the balance on hand on 31st December 1896 were as under :—

	Rs.
Bridge work	6,065
Engineer's plant	30,083
Workshop machinery	17,982
Ballast and permanent way	2,49,337
Rolling stock	7,64,065
Station materials and fencing	87,370
Tools and stores	9,11,243
	20,66,145
Amount under adjustment	18,194
	20,84,339
Bangalore-Hindupur Railway	876
	20,85,215

The increase of Rs. 1,29,914 in the balance of stores in hand, as compared with the corresponding period of 1895, is due mainly to the annual supply of stores having been received from England during the latter part of the year.

The addition to stock during the year consisted of—

	Rs.
English supplies	5,14,564
Indian purchases	11,75,171
Returned stores	60,000
Manufacture in shops	1,11,285
Purchase from other Railways	3,752
	18,64,772

The issues during the same period were :—

	Rs.
On Capital account, Southern Mahratta Railway ...	4,32,567
„ Revenue do.	12,61,102
„ Sales	8,535
„ Bangalore-Hindupur Railway	32,654
	17,34,858

The description of stores imported on indents from England is as detailed below :—

Fog signals.
Copper and zinc plates.
Blank card tickets.
Paints and varnish.
Bearings for axle boxes.
Steel axles.
Wheels and axles for trollies.
Metals.
Steel tyres.
Engine hoist.
Bolts, fish, and nuts.
Rails, steel.
Glassware.
India Rubber fittings.
Roof lamps.
Beaters pick.
Canvas roofing.
Buffers for wagons.
Waterproof clothing.
Buffer fittings.
Workshop machines.
Crank arms.
Volute springs.
Delivery hose.
Boring bits W. I.

The rolling stock of the line on the last day of the year was as under :—

SOUTHERN MAHRATTA RAILWAY.

Locomotives	178
Coaching vehicles	711
Goods vehicles	4,009

MYSORE STATE RAILWAY.

Locomotives	42
Coaching vehicles	192
Goods vehicles	695

The number of locomotives and vehicles repaired and renewed during the year were as shown below :—

Description.	Repaired during the half-year.	Renewed during the half-year.	Undergoing or awaiting repairs on the last day of the half-year.	Undergoing or awaiting renewals on the last day of the half-year.
Southern Mahratta Railway.				
Locomotives	53	...	27	...
Coaching vehicles	244	4	50	3
Goods vehicles	526	1	185	21
Mysore State Railway.				
Locomotives	12	...	10	...
Coaching vehicles	72	...	20	...
Goods vehicles	86	...	30	2

The vehicles adapted to military purposes were :—

SOUTHERN MAHRATTA RAILWAY.

Coaching vehicles fitted for ambulance purposes	Nil.
Do. fitted with hooks or racks for rifles	45½ second class. 234¾ third „
Horse boxes capable of carrying 4 horses.	28
Covered goods wagons adapted for carriage of horses...	100.
Open goods wagons suitable for carriage of artillery guns	111 medium or high-sided wagons. 424 ballast or low-sided wagons.

MYSORE STATE RAILWAY.

Coaching vehicles fitted for ambulance purposes	3 third class carriages.
Do. fitted with hooks or racks for rifles	13½ second class „ 55 third class „
Horse boxes capable of carrying 4 horses.	8.
Covered goods wagons adapted for carriage of horses	Nil.
Open goods wagons suitable for carriage of artillery guns	75 ballast or low-sided wagons.

Brakes.

No automatic vacuum brakes have been fitted to stock running on this line, but the following have been fitted with Westinghouse brakes :—

Locomotives	3
Coaching vehicles	19

Couplings.

Jones' system of buffers and couplings is now generally in use on coaching stock, and goods vehicles are being fitted.

Lighting of Carriages by Pintsch's gas system.

Lighting carriages with Pintsch's gas has not yet been introduced on this line, but an estimate has been prepared and sanctioned and an indent sent on to England for the necessary plant.

One A class engine was taken off the line and converted into a stationary engine for use in the workshops.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

(Includes the Jetalsar-Rajkot Railway.)

The statement below shows the transaction of the Stores Department:—

	Rs. a. p.	Rs. a. p.
Balance on 1st January 1896	.....	3,19,357 12 3
Receipts during 1896—		
Purchases in India	6,16,089 11 4	
Do. England	1,09,329 3 11	
		7,25,418 15 3
Total ...	.....	10,44,776 11 6
Issues during 1896—		
Capital	4,29,720 15 2	
Revenue	2,67,937 4 9	
Sales	82,283 11 5	
Total, Issues ...	.....	7,79,941 15 4
Balance on 31st December 1896 ...	.....	2,64,834 12 2

Particulars of sales are as follows:—

Rs.	53,595	12	6	are for Coal to Morvi Railway.	
„	13,200	9	3	do. Timber.	To Jamnagar Railway.
„	2,907	13	0	do. Coal.	
„	1,055	0	2	do. P. W. Material.	
„	9,845	10	9	do. Miscellaneous Store.	
„	1,025	13	0	do. Coal.	To Public.
„	653	0	9	do. Miscellaneous Stores.	

Detail of balance on hand on 31st December 1896:—

	Rs. a. p.
General Stores	2,18,984 4 11
Locomotive Stores	34,309 14 4
Forms and Stationery	11,540 8 11
Total ... Rs.	2,64,834 12 2

The principal item of stores comprising the balance in the Magazine are:—

	Rs. a. p.
Bridge-work	1,623 12 6
Engineers' Plant	13,272 0 10
Work-shop Machinery and Heavy Tools ...	2,044 12 4
Ballast and Permanent way	96,996 10 7
Locomotive Duplicates	63,751 10 1
Coaching and Goods Stock	17,459 0 0
Station Materials and Fencing	9,862 5 0
Tools and Stores	13,974 1 7
Total ... Rs.	2,18,984 4 11

Out of Rs. 2,18,984-4-11, the total value of stores in the Magazine, Rs. 54,004-8-3 represents the value of depreciated or second-hand stores.

The Rs. 34,309-14-4 of Locomotive Stores consists of stores as below:—

		Rs.	a.	p.
Carriage and Wagon Materials	... ...	8,667	15	11
Metals	... ...	203	12	5
Timber	... ...	6,660	12	9
Coal and Coke ...	... ...	15,684	14	2
Petty and Miscellaneous Stores	... ...	3,092	7	1
Total	... Rs.	34,309	14	4

Out of Rs. 11,504-8-11 on account of Forms and Stationery, Rs. 8,741-4-6 represents value of forms and books and Rs. 2,799-4-5 of stationery.

During the year the following Departments have returned stores to Magazine above Rs. 100:—

		Rs.	a.	p.
Engineering Department ...	...	32,199	12	2
Locomotive and Carriage Department	...	1,322	5	4
Total	... Rs.	33,522	1	6

The principal items of stores returned to Magazine by the Engineering Department are:—

	Rs.	a.	p.
Rails, Steel	13,185	0	0
Sleepers, Steel	2,077	0	0
Sleepers, C. P.	429	0	0
Pulley Blocks	314	0	0
Points and Crossings	1,502	0	0
Spikes, Dog	398	0	0
Engines, Portable	5,719	0	0
Pumps, Centrifugal	2,106	0	0
Pipes	1,024	0	0
Indicators...	420	0	0
Chain, Iron, ordinary	421	0	0

By the Locomotive and Carriage Department—

Copper Tube Plate	979	0	0
Hides, Leather, Maroon	233	0	0

Morvi Railway—(2′ 6″ *Gauge*).

One bogie 3rd class carriage, 24 feet long with two compartments, two bogie 3rd class carriages, 30 feet long with three compartments, and one bogie composite 1st and 2nd class, 28 feet long, all on an improved style, were constructed during the year; and three bogie 3rd class carriages 30 feet long and one bogie composite 1st and 2nd class 28 feet long are under construction.

Fifteen 3rd class and two 2nd class carriages, two mail vans and two brake vans passed through the shops, and one brake van was fitted with corrugated iron sheets. One bogie 1st class carriage was repaired and another was altered into composite 1st and 2nd and the officers' saloon was thoroughly repaired and painted.

Thirteen open wagons and three covered wagons were repaired and one covered wagon fitted with corrugated iron sheets.

Five engines passed through the shops. Two were throughly repaired while three underwent general repairs.

Capital works for His Highness the Thakore Saheb—One saloon 35 feet long for His Highness the Thakore Saheb is under construction. One bogie saloon and four-wheeled saloon, and one kitchen carriage have undergone alterations and one bogie horsebox has been repaired.

A good oxide having been discovered in Adhoi (a Mahal of the Morvi State), very good paint has been manufactured with it and used for all 2nd and 3rd class carriages.

H. H. The Gaekwar's Dabhoi Railway—(*2′ 6″ Gauge*).

The Stores account closed on 31st December 1896 with a balance of Rs. 30,426, or Rs. 12,672 more than the balance at close of 1895 as under :—

	Rs.
Balance on 31st December 1896 ...	... 30,426
Do. do. 1895 ...	... 17,754
Net decrease ...	12,672

The principal items of the balance on 31st December 1895 were :—

	Rs.
Ferrules, steel	... 4,878
Rails, steel	... 6,887
Springs, helical, for safety chains ...	... 1,551
Tubes, brass	... 3,400
Tyres, steel	... 6,207

The rolling stock on 31st December 1896 consisted of the following :—

	Total Stock.	Undergoing or awaiting renewal or repairs.	In running order.
Locomotives	8	2	6
Coaching vehicles			
State saloons	2	...	2
Cooking carriage	1	...	1
Upper class	6	...	6
Lower class	26	...	26
Open wagons fitted with roof and door ...	4	...	4
Brake vans	2	...	2
Total, Coaching Vehicles ...	41	...	41
Goods Vehicles—			
Open wagons...	141	...	141
Covered wagons	30	...	30
Timber trucks	6	...	6
Low-sided wagons, bogie...	32	...	32
Trucks for carriage of boilers, bogie	2	...	2
Brake vans	6	...	6
Total, Goods Vehicles ...	217	...	217

Ten open wagons were renewed as five low-sided wagons, bogie, and transferred accordingly.

None of the above stock are adapted for military purposes.

Chapter VI.—Capital Transactions.

(For the calendar year ending 31st December 1896.)

G. I. P. Railway—(*Standard Gauge*).

At the end of the year, the capital authorized and subscribed was as under, the changes being the reduction of $3\frac{1}{4}$ per cent. debentures by £ 600,000 and of 3 per cents. by £ 300,000 and the creation of $2\frac{3}{4}$ and $2\frac{1}{2}$ per cent. debentures to the extent of £ 300,000 each, the premia obtained on the transactions being £ 3,375 :—

	£	£	Rs.
Authorized capital—			
Share Capital		20,000,000	
Debenture Stock		6,666,666	
Total ...		26,666,666	=29,09,09,084
Subscribed Capital—			
5 per cent., Share Capital ...		20,000,000	
4 do. Debenture stock ...		2,701,450	
3¼ do. Debentures... ...		1,002,100	
3 do. do.		1,068,800	
2¾ do. do.		300,000	
2½ do. do.		300,000	
Total Interest-bearing Capital ...		25,372,350	
Add—			
Capital not bearing interest—			
Premia on Share Capital and Loans ...	2,33,245		
Transferred from Casualty Fund	74,187		
	307,432		
Less—			
Discount on Loans, £ 13,983			
Do. on Debenture Stock ... 225,891			
	239,874		
		67,558	
Total Capital paid into Treasury ...		25,439,908	=27,75,26,268
Capital Expenditure—			
On Construction Account ...		25,234,080	=27,52,80,875
On Stores in Suspense ...		359,350	= 39,20,182
Less—			
Credit balance of advances in Suspense		15,756	= 1,71,884
Total ...		25,577,674	=27,90,29,173
Balance available of authorized Capital		1,088,992	= 1,18,79,911
Amount of overdrawn Capital ...		137,766	= 15,02,905

The following table gives the detail of Capital expenditure on final heads of account :—

	During 1895.	To end of 1895.
	Rs.	Rs.
Preliminary Expenses	.....	2,72,727
Establishment charges	.....	40,35,134
Engineering and Surveying Expenses	14,319	1,47,61,046
Law charges	.....	2,04,577
Stations and buildings	1,64,084	3,53,94,595
Commission on loans	.....	4,89,815
Passages to Bombay	.....	4,76,508
Permanent-way	67,799	6,63,68,212
Works	76,427	10,73,04,061
Electric Telegraph	.....	17,66,926
Locomotive and Carriage and Wagon expenses ...	2,92,939	4,42,07,274
Total, Final heads ...	6,15,568	27,52,80,875
Stores Suspense Account	Cr. 11,54,514	39,20,182
Advances in Suspense	Dr. 28,883	Cr. 1,71,884
Total, Final and Suspense Heads ...	Cr. 5,10,063	27,90,29,173

The individual Capital works, on which the expenditure during the year amounted to Rs. 20,000 or more, were as follows :—

	Expenditure of the year.
	Rs.
Fitting Company's trains with Pintsch's lighting apparatus	86,149
Fitting Company's Coaching stock with automatic vacuum brakes	1,61,854
Akola—Additions and alterations to station ...	23,088
Erection of 5 tank wagons for mineral oil ...	31,118
Renewal of Kalimarchan, Naktwa and Sangli bridges	43,828
Mazagon Interlocking apparatus	27,991
Mund viaduct—Rebuilding tops of piers, &c. ...	29,731

The interest charges paid for 1896 compare as follows with the net earnings of that year :—

	Rs.
Interest on share capital at 5 per cent. ...	1,09,09,091
Do. Debenture Stock at 4 per cent. ...	11,78,815
Do. Debentures. at $3\frac{1}{4}$ „ ...	5,14,835
Do. do. at 3 „ ...	3,49,789
Do. do. at $2\frac{3}{4}$ „ ...	90,000
Do. do. at $2\frac{1}{2}$ „ ...	40,909
Total Interest ...	1,30,83,439
Net earnings of the year less rent of leased lines, contribution to Provident Fund, interest on overdrawn Capital and writes-off of irrecoverable outstandings to 25th March 1897 ...	1,54,02,242
Excess of net earnings over interest charges ...	23,18,803

Equivalent to 0·8377 per cent. on the interest bearing capital.

There was an overdrawal of capital at the end of the year to the extent of £ 137,766=Rs. 15,02,905.

DHOND AND MANMAD AND WARDHA COAL STATE RAILWAYS—(*Standard Gauge*).

The expenditure of the year 1896 was :—

	Rs.
Dhond and Manmad Railway	54,803
Wardha Coal State Railway	5,511

and was incurred on the following heads :—

	Dhond and Manmad Rly.	Wardha Coal Rly.
	Rs.	Rs.
Land	152	...
Bridge-work	19,062	...
Fencing	69,555	262
Ballast and Permanent-way ...	1,266	...
Stations and buildings	13,104	5,249
General charges	669	...
Suspense	—49,005	...
Total ...	54,803	5,511

The total expenditure from commencement of operations to end of 1896 was as under :—

	Dhond and Manmad Rly.	Wardha Coal Rly.
	Rs.	Rs.
Expenditure in England ...	44,28,718	9,47,839
Do. in India ...	69,44,332	40,48,466
Total ...	1,13,73,050	49,96,305

THE BERAR STATE RAILWAYS—(*Standard Gauge*).

Khamgaon Railway.—The capital outlay during the year amounted to Rs. 1,656 and was incurred on :—

	Rs.
Ballast and Permanent-way	—21
Stations and Buildings	1,706
	1,685
Less—Refund on account of stores sold	29
Total ...	1,656

Amraoti Railway.—There was an expenditure of Rs. 1,131 which was made up as under :—

	Rs.
Ballast and Permanent-way	992
Stations and Buildings	315
	1,307
Less—Refund on account of stores sold	176
Total ...	1,131

The total capital cost of these lines from commencement of operations to end of 1896 was as under :—

	Rs.
Khamgaon State Railway	5,22,603
Amraoti State Railway	4,51,119

B. B. AND C. I. RAILWAY—(*Standard Gauge*).

Capital authorised has increased during the year by £ 500,000 or Rs. 54,54,545 and capital subscribed by £ 410,549 or Rs. 44,78,720. These changes are attributable to the following causes :—

	£.
1. Debenture bonds (2½ per cent) raised during the year ...	500,000
2. Premium on above not bearing interest	11,149
3. Repayment during the year of debenture bonds (3½ per cent.)	100,600

The Capital Account on 31st December 1896 was as follows :—

	£	£	Rs.
Capital authorised—			
Share Capital	6,250,000		
Debenture bonds	4,463,500		
		10,713,500	=11,68,74,545
Capital subscribed—			
Share Capital	6,250,000		
Debenture bonds converted into stock ...	1,300,300		
Debenture bonds at 3½ per cent. ...	888,500		
Do. at 3 per cent.	300,000		
Do. at 2½ per cent. ...	749,400		
Capital not bearing interest	29,568		
		9,517,768	=10,38,30,196
Capital Expenditure—			
On construction account		9,153,283	= 9,98,54,001
„ Stores in Suspense		342,282	= 37,33,986
„ Advances in Suspense		Cr. 39,497	=Cr. 4,30,880
		9,456,068	=10,31,57,107
Balance available of—			
Capital authorised		1,257,432	= 1,37,17,438
Capital subscribed		Cr. 61,700	= Cr. 6,73,089

The following table gives details of the Capital Expenditure on final heads of account :—

Heads.	During 1896.	To end of 1896.
	Rs.	Rs.
Preliminary expenses (England)	.....	1,88733
Engineering and surveying (England)	.....	2,48,415
Establishment charges (do.)	.....	8,80,918
Payments in England on account of officers in India, including passages and travelling expenses	.....	5,94,417
Construction, Plant and Workshop	.....	77,70,539
Earthwork and ballasting	3,01,368	93,27,875
Electric telegraph	.....	43,803
Fencing	14,669	13,20,645
General charges	22,680	76,65,633
Great Indian Peninsula Railway, Máhim Branch purchase account	.....	67,000
Iron bridges	4,59,753	1,60,23,940
Level-crossings	2,968	3,67,322
Masonry bridges and culverts	41,792	54,18,840
Permanent way	8,95,400	2,26,75,003
Roads	.....	74,764
Rolling stock and machinery	1,46,238	1,78,98,155
Stations and bungalows	5,53,478 42,255	90,83,728
Dhejbára Survey	.....	3,003
Pátri line (Company's proportion)	.....	1,51,605
Wadhwán joint works account	.....	27,984
Sáhibágh water-works joint account	.....	21,679
Total, final heads ...	24,80,601	9,98,54,001

The individual works on which heavy expenditure was incurred during the year were :—

	Expenditure of year. Rs.
New terminal station and re-arrangement of the yard at Colaba ...	62,976
New grain-shed at Carnac Bridge	1,79,614
Crane siding and covered platform at Carnac Bridge ...	12,698
General Offices at Church Gate	1,23,651
Additional shunting siding at Dadar Junction	23,714
Doubling the line between Virar and Palghar	4,86,260
Renewal of Warren girder bridges with plate girders ...	2,60,329
Doubling the line between Amroli and Itola	3,72,903
Additions and alterations to the station-yard at Godhra ...	70,792
Doubling the main line between Palghar and Dahanu ...	3,92,467
Additional siding and goods accommodation at the southern end of Ahmedabad station yard	23,209
Raising the rail level of Ambica bridge No. 368	41,979
Ten additional passenger engines	90,433
Introduction of Pintsch's patent system of gas lighting in carriages	20,178
Erection of a rolling mill at Parel	21,238

The total capital bearing interest to end of 1896 was Rs. 10,35,07,636 and the guaranteed interest due to the Company during 1896 was Rs. 46,89,598 as under :—

	Rs.
Paid in England	46,88,439
Paid in India	1,159
Total ...	46,89,598

Rs. 55,007 accrued during the year as interest on overdrawn Capital.

The net earnings of the year amounted to Rs. 89,90,770.

RAJPUTANA-MALWA RAILWAY AND PALANPUR-DEESA RAILWAY—
(*Metre Gauge*).

GODHRA-RUTLAM-NAGDA RAILWAY—(*Broad Gauge*).

The total Capital outlay on the whole system, including the Palanpur-Deesa and Godhra-Rutlam-Nagda Railways, during and to end of 1896, was as follows :—

Heads of Account.	RAJPUTANA-MALWA RAILWAY SYSTEM.		GODHRA-RATLAM-NAGDA RAILWAY.		PALANPUR-DEESA RAILWAY.	
	During 1896.	To end of 1896.	During 1896.	To end of 1896.	During 1896.	To end of 1896.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Preliminary Expenses	.....	22,71,382	.....	1,80,184	...	1,973
Land	1,363	13,22,017	4,353	31,355	...	...
Formation	25,136	72,76,525	1,32,968	59,79,101	203	64,414
Bridge work	16,738	2,16,17,744	1,92,538	41,31,977	...	59,429
Fencing	73,718	28,60,023	17,610	2,66,770	1,746	9,537
Electric Telegraph	.....	.....	474	4,065	...	...
Ballast and Permanent way	41,931	3,71,97,231	4,78,902	46,34,126	6,460	2,09,667
Stations and Buildings	2,95,156	1,82,01,903	1,71,430	13,07,604	8,963	51,147
Plant	37,046	30,16,560	19,603	56,708	...	6,672
Rolling Stock	2,14,578	2,14,45,130	.....	.....	...	...
General Charges	.....	83,33,216	27,000	7,75,263	...	14,907
Loss by Exchange	.....	49,08,971	.....	.....	...	...
Suspense	—6,08,215	43,91,062	—13,89,668	99,431	...	...
Total Direct Outlay ...	97,451	13,28,41,764	—3,44,790	1,74,66,584	17,372	4,17,746
Indirect Outlay ...	.....	17,86,415	.....	.....	...	...
Grand Total ...	97,451	13,46,28,179	—3,44,790	1,74,66,584	17,372	4,17,746

The Capital expenditure during 1896, including suspense, on the Rajputana-Malwa Railway system proper was incurred on the—

	Rs.
Rajputana-Malwa Railway	—60,481
Holkar Railway	15,087
Rewari-Ferozpore Railway...	54,642
Cawnpore-Achnera Railway	88,203
Total ...	97,451

The principal individual works on which expenditure was incurred during the year were—

Rajputana-Malwa Railway.

	Rs.
Additional quarters for Traffic Department at Bandikui ...	11,971
Junction arrangements at Ujjain station yard owing to the entry of broad gauge lines	84,762
Institute at Rutlam	11,017
Additional accommodation required in the stores magazine at Ajmere	15,113
Additions and alterations to the Carriage and Wagon shops at Ajmere	9,384
New house for the Engineer-in-Chief, Rajputana-Malwa Railway at Ajmere	13,609
Fencing 20 miles of line on the Abu Division between miles 276 and 297	32,700
Four two-roomed quarters for Locomotive drivers at Abu Road...	19,369
Additional menials' quarters for the Locomotive Department at Abu Road	11,437
Quarters for the Assistant Engineer at Abu Road	8,041
Additional quarters for the traffic staff at Abu Road ...	9,479
Supply of paulins to the Traffic Department for goods wagons...	31,728
Building 10 tenders of 1,600 gallons of water capacity for "O" class engines on the Sirsa District	33,318
Construction of one "F" and one "O" class engine from duplicates available in Rajputana-Malwa Railway Locomotive stores	20,107
Construction of 40 Bogie 3rd class carriages 41′ × 7′-9″ ...	1,38,528
Building 82 iron covered goods wagons 29′ with brake compartments	16,272

Rewari-Ferozepore Railway.

	Rs.
Additional quarters for European drivers and menials of Locomotive Department at Sirsa	20,750
Additional reservoirs at Raman and Bhatinda	16,849

Cawnpore-Achnera Railway.

Fencing certain portions (20 miles) of line	23,809
New works at Cawnpore Station	17,284
Watering arrangements at Muttra	11,973
Re-construction of a bridge at mile 114 near Rudain station ...	9,504

NAGDA-UJJAIN RAILWAY—(*Standard Gauge*).

This line was opened on the 15th July 1896. It has been constructed from funds supplied by the Gwalior Darbár. The Capital outlay to end of 1896 was as follows :—

	Rs.
Preliminary Expenses	10,938
Land	...
Formation	1,33,583
Bridge work	4,45,803
Fencing	6,110
Electric Telegraph	479
Ballast and Permanent way	12,60,685
Stations and Buildings	53,525
Plant	1,228
General Charges	1,58,900
Total ...	20,71,251

OODEYPORE-CHITOR RAILWAY—(*Metre Gauge*).

Statements showing the Capital outlay on the line have not been furnished by the Meywar Darbar.

H. H. THE GAEKWÁR'S RAILWAYS.

The expenditure during 1896 is exhibited in the following table :—

Particulars.	Dabhoi Railway (2′ 6″ gauge).	Petlad Railway (Standard gauge).	Mehsana Railway (Metre).
	Rs.	Rs.	Rs.
Preliminary Expenses	—146	.....	.....
Formation	45,125	.....	2,656
Bridge work	.....	.....	15,574
Fencing	.....	.....	1,737
Ballast and Permanent way	33,199	.....	—16,620
Stations and Buildings	8,601	.....	1,287
Plant	176	.....	.....
Rolling Stock	11,750	.....	.....
General Charges	8,425	.....	1,769
Suspense	58,870	—23	.....
Total ...	1,66,000	—23	6,403

The total Capital outlay, including suspense, from commencement of operations to end of 1896 was as follows :—

	Rs.
Dabhoi Railway	20,74,756
Petlad Railway	7,23,116
Mehsana Railway	32,61,447

Note.—Expenditure on surveys of new lines has been omitted.

SOUTHERN MAHRATTA RAILWAY—(*Metre Gauge*).

No change occurred in the Capital authorized and subscribed, which stood as follows on 31st December 1896:—

	£	Rs.
Authorized Capital—		
Stock and share Capital	3,500,000	
Debenture stock	943,100	
Total ...	4,443,100	5,43,17,200
Subscribed Capital—		
3½ per cent., share Capital ...	3,500,000	
3¼ do. Debenture stock ...	688,100	
3 do. do. ...	255,000	
Total interest-bearing Capital ...	4,443,100	
Capital not bearing interest—		
Premia on shares	30,957	
Total ...	4,474,057	5,47,50,592
Add—		
Advances by the Secretary of State...	2,129,900	2,55,58,800
Bellary-Kistna Railway—		
Government expenditure account ...	1,184,172	1,65,78,416
Total Capital received to 31st December 1896	7,788,129	9,68,87,808
Capital Expenditure—		
On construction account	7,589,963	9,45,09,811
On stores and suspense account ...	169,180	20,30,159
Less—		
Share of joint store balances on 31st December 1896 chargeable to Mysore State Railway	37,099	4,45,183
Total ...	7,722,044	9,60,94,787
Balance of Capital available for expenditure	66,085	7,93,021

Mileage open—1,042·04 miles.

The following table gives the detail of Capital expenditure on final heads of account:—

	During 1896.	To end of 1896.
	Rs.	Rs.
Preliminary Expenses	.....	10,90,895
Land	—15,352	11,38,553
Formation	11,348	1,91,24,353
Bridge work	12,817	1,86,06,682
Fencing	9,945	15,06,208
Electric Telegraph	.....	.....
Ballast and Permanent-way ...	29,113	2,15,99,146
Stations and Buildings	2,23,234	1,11,67,884
Plant	17,280	28,17,086
Ferries, &c.	.....	.....
General charges	10,380	65,01,921
Rolling stock	42,551	1,04,65,993
Loss by Exchange	.....	4,91,090
Total, Final heads ...	3,41,316	9,45,09,811
Stores and Suspense Account ...	1,50,882	15,84,976
Total, Final and Suspense heads ...	4,92,198	9,60,94,787

The following were some of the principal Capital works on which expenditure was incurred during the year:—

	Rs.
Fencing	9,900
Extension of locomotive workshops and remodelling yard, Hubli	14,300
Quarters for the staff at Guntakal	19,000
Do. do. at Donakonda	32,900
Additional works for Traffic Department at Alnawar.	12,000
Sidings at Gadag and Dharwar	14,000
Doubling engine-shed and other locomotive works at Donakonda	15,000
Fitting Jones' Buffers to coaching stock ...	10,500
Additional rolling stock	26,000
Supplying moveable glass windows, &c., to 3rd class carriages	6,300
Additional tools and machinery for Hubli shops ...	15,000
Railway schools, Hubli and Guntakal	14,000

The interest charges paid for 1896 compare as follows with the net earnings of that year:—

	Rs.
Interest—	
On subscribed Capital at 3½ per cent.	20,65,897
On Debentures at 3¼ per cent.	3,83,320
On Debentures at 3 per cent.	1,31,126
On advances by Secretary of State	12,02,274
On Bellary-Kistna Railway Government outlay ...	6,63,123
Total ...	44,45,740
Net earnings less contribution to Provident Fund ...	29,11,801
Excess of interest charges over earnings ...	15,33,939

Mysore State Railway—(*Metre Gauge*).

No change occurred in the Capital authorized and subscribed, which stood as follows on 31st December 1896:—

	£	Rs.
Authorized Capital—		
Debenture stock	1,200,000	1,60,61,569
Subscribed Capital—		
4 per cent. Debentures	1,200,000	1,60,61,569
Add—		
Capital not bearing interest Premia on shares	24,000	3,21,232
Total ...	1,224,000	1,63,82,801
Capital Expenditure—		
On construction account	1,095,660	1,46,65,018
On stores and suspense	33,116	4,43,240
Total ...	1,128,776	1,51,08,258
Balance of Capital available for expenditure	95,224	12,74,543

Mileage open—296·00 miles.

The following table gives the detail of Capital expenditure on final heads of account :—

	During 1896.	To end of 1896.
	Rs.	Rs.
Preliminary Expenses	.....	2,95,375
Land	808	1,09,000
Formation	8,792	23,73,480
Bridge work	2,165	19,03,993
Fencing	758	1,37,025
Ballast and Permanent-way ..	19,874	50,64,678
Stations and Buildings	97,661	13,35,605
Plant	1,779	3,30,993
General charges	4,852	9,00,972
Rolling stock	3,305	22,13,897
Stores and Suspense	45,811	4,43,240
Total, Final and Suspense heads ...	1,85,805	1,51,08,258

The following are some of the principal Capital works on which expenditure was incurred during the year :—

	Rs.
Conversion of temporary station Yeshvantpur into a permanent one	12,000
Re-arrangements and additions to Bangalore Station yard ...	54,000
Supplying moveable glass windows to 3rd class carriages ...	1,600
Fitting Jones' Buffers to coaching stock	8,000

The interest charges paid for 1896 compare as follows with the net earnings of that year :—

	Rs.
Interest on Debentures at 4 per cent.	8,21,588
Earnings less contribution to Provident Fund	6,76,975
Excess of interest charges over earnings	1,44,613

Kolhapur State Railway—(*Metre Gauge*).

Miles open—29·07.

The following table shows Capital expenditure during the year and to end of 1896:—

	During 1896.	To end of 1896.
	Rs.	Rs.
Preliminary expenses	.....	13,858
Land	—2,668	29,203
Formation	.....	2,68,590
Bridge work	—51,662	11,22,548
Fencing, &c.	.....	41,668
Ballast and Permanent-way	749	4,91,138
Stations and Buildings	—4,873	2,29,257
Plant	.....	7,059
General charges	.....	1,02,591
Total final head ...	—58,454	23,05,912
Suspense Accounts ..	.....	.....
Total, Final and Suspense heads ...	—58,454	23,05,912

GUNTAKAL-MYSORE FRONTIER RAILWAY—(*Metre Gauge*).

Miles open—119.

The following table gives the detail of Capital expenditure during the year and to end of December 1896 :—

	During 1896.	To end of 1896.
	Rs.	Rs.
Preliminary expenses	.....	59,327
Land	5,965	28,270
Formation	734	7,83,879
Bridge work	—19,759	20,32,615
Fencing, &c.	—32	56,997
Electric Telegraph	.....	1,345
Ballast and Permanent-way	—1,397	18,24,347
Stations and Buildings	43,660	4,70,275
Plant	.....	28,581
General charges...	—751	6,14,522
Total Expenditure ...	28,420	59,00,158

The credit expenditure during the year was for construction material sold.

The principal works in progress during the year were the construction of quarters for the staff.

The following figures show the comparison of interest charges with net earnings of the year ;—

	Rs.
Interest on capital at 4 per cent.	2,35,616
Net earnings	2,10,691
Excess of interest over net earnings	24,925

YESHVANTPUR-MYSORE FRONTIER RAILWAY—(*Metre Gauge*).

Miles—open 51·35.

The following table shows the Capital expenditure during the year and to end of 1896:—

	During 1896.	To end of 1896.
	Rs.	Rs.
Preliminary expenses	16	66,346
Land	1,292	25,085
Formation	195	5,41,815
Bridge work	1,699	5,46,629
Fencing, &c.	38	65,247
Ballast and Permanent-way	—121	8,52,537
Stations and Buildings	—489	1,24,813
Plant	5,565	35,896
General charges	.....	1,43,378
Total, final heads ...	8,195	24,01,746
Store and Suspense Accounts ...	—33,130	—6,984
Total, Final and Suspense heads ...	24,935	23,94,762

NANJANGUD RAILWAY—(*Metre Gauge*).

Miles open—15·25.

The following table shows the Capital expenditure for the year and to end of 1896 :—

	During 1896.	To end of 1896.
	Rs.	Rs.
Preliminary expenses	.....	15,210
Land	.....	3,005
Formation	.....	1,34,407
Bridge work	.....	83,281
Fencing	.....	19,613
Ballast and Permanent-way... ...	.....	2,43,694
Stations and Buildings	.....	56,966
Plant	.....	5,651
General charges...	.....	39,931
Total final heads ...	.....	6,01,758
Stores and Suspense Accounts ...	468	7,923
Total, final and suspense heads ...	468	6,09,681

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

The total Capital outlay, including suspense, on final heads of account, to the 31st December 1896, was Rs. 1,75,63,395. The distribution of this amount over the sections of the Railway was as shown below :—

	Rs.
Bhavnagar	70,76,486
Gondal-Porbandar	65,99,002
Junagad	38,87,907

The Capital outlay on the line during the year amounted to Rs. 85,196-9-10, the expenditure being mostly incurred on bridge-work and stations and buildings ; there were, however, credits to the extent of Rs. 1,21,833-4-9 chiefly under the head "Suspense Account." There was consequently a net credit to Capital of Rs. 36,637, the total Capital account of the line at the end of 1896 being less by that sum than it was at the close of 1895.

The following statement shows the total Capital outlay, including suspense, on each section, to the end of 1896, and the financial results thereon, interest being calculated at 4 per cent. :—

	Bhavnagar.	Gondal-Porbandar.	Junagad.	Total.
	Rs.	Rs.	Rs.	Rs.
Capital outlay to end of 1896 ...	70,76,486	65,99,002	38,87,907	1,75,63,395
Interest on capital outlay for 1896.	2,83,092	2,64,240	1,55,563	7,02,895
Net earnings for 1896	5,70,607	*2,97,471	1,21,196	9,89,274
Difference between net earnings for 1896 and interest	+2,87,515	*+33,231	—34,367	+2,86,379
Total interest from commencement to end of 1896	43,59,391	29,45,950	12,39,329	85,44,670
Total net earnings to end of 1896.	60,10,527	*23,71,972	4,07,958	87,90,457
Difference between total interest and total net earnings to end of 1896	+16,51,136	—5,73,978	—8,31,371	+2,45,787
Percentage of net earnings on capital outlay for 1896 ...	8·06	4·52	3·12	5·63

* Includes loss incurred in working the Porbandar Dock Estate.

The results of the year were better on every section than those of 1895 the percentage of net earnings to Capital outlay in the latter being 4·67 against 5·63 in 1896.

JETATSAR-RAJKOT RAILWAY—(*Metre Gauge*).

The total Capital outlay on final heads of account to 31st December 1896 was Rs. 15,29,265 expended on—

	Rs.	Cost per mile.
Way and works	14,39,813	31,144
General charges	82,977	1,794
Total ...	15,22,790	
Suspense account	6,475	
	15,29,265	
Miles open... ...		46·23

The above figures do not include the cost of rolling-stock, the line being worked by the Bhavnagar-Gondal-Junagad-Porbandar Railway Administration with their own stock.

The expenditure during the year on Capital account was Rs. 29,154-7-7 incurred chiefly on 'Fencing,' 'Ballast and Permanent-way' and 'Stations and Buildings'; there was however a credit to Capital of Rs. 3,475-0-4, mostly due to bridge-centres sold to the Jamnagar Railway. The net outlay charged to the Capital account of the line during the year was therefore Rs. 25,679-7-3.

The net earnings of the line for 1896 amounted to Rs. 84,239 which is equivalent to a return of 5·51 on the Capital outlay.

MORVI RAILWAY—(*2′ 6″ Gauge*).

The total Capital expenditure on final heads of accounts to 31st December 1896 was Rs. 23,63,805. The amount held in suspense was Rs. 18,510, thus making the total Capital outlay of Rs. 23,82,315.

The following is the detail of the Capital expenditure on final heads of accounts :—

Main heads of accounts.	During 1896.	Total at the end of 1896.
	Rs. a. p.	Rs. a. p.
Preliminary Expenses	.....	18,134 7 0
Land	.....	1,171 7 9
Construction of Line	8,734 0 3	6,91,065 13 7
Ballast and Permanent way ...	—913 6 4	11,04,223 10 10
Stations and Buildings	2,083 1 4	45,888 3 4
Plant	119 10 1	14,507 6 4
Establishment	.....	1,02,846 13 0
Rolling Stock.		
Locomotive	.....	1,26,098 11 6
Carriage and Wagon	24,361 0 0	2,59,868 2 11
Total ...	34,379 5 4	23,63,804 12 3

The total Capital expenditure for the year amounted to Rs. 34,379 incurred chiefly on construction of line, stations and buildings, and carriage and wagon stock.

The increased outlay under "Construction of line" was chiefly due to the payment made to the B. B. & C. I. Railway for extension of this Railway siding now being effected to north side of the B. B. & C. I. Railway (broad gauges) Wadhwan Junction station for facility to the transhipment of goods, &c.

The increase under "Stations and Buildings" was due to a waiting-room built at Muli, provision of additional accommodation to the waiting-room and a bath-room at Vankaner, quarters at Dhuwa and Muli for time-keepers, and two wells sunk at Morvi and Khorana stations.

The increase under "Carriage and Wagon" was due to the provision of four additional coaching vehicles to the stock.

The credit under "Ballast and Permanent way" was due to an adjustment for the difference in cost of rails.

The following statement shows the interest charges at 4 per cent. per annum on the total Capital outlay including suspense to the end of 1896:—

	Rs.
Capital outlay to end of 1896 ...	23,82,315
Interest on capital outlay for 1896 .	95,170
Net earnings for 1896	1,81,621
Difference for 1896	+86,451
Total interest from beginning to end of 1896	7,43,872
Total net earnings to end of 1896 .	10,92,387
Difference to end of 1896	+3,48,515

Chapter VII.—Revenue Transactions.

(For the calendar year ending 31st December 1896.)

GREAT INDIAN PENINSULA RAILWAY—(*Standard Gauge*).

The result of the year's transactions as compared with 1895 is shown in the subjoined table:—

	1895.	1896.	Difference.
	Rs.	Rs.	Rs.
Gross earnings...	3,37,90,193	3,44,19,629	+6,29,436
Working expenses	1,90,51,762	1,83,55,735	—6,96,027
Net earnings	1,47,38,431	1,60,63,894	+13,25,463
Percentage of expenses on earnings ...	56·38	53·33	—3·05
	Miles.	Miles.	Miles.
Train mileage	8,752,066	9,000,933	+248,867
	Rs.	Rs.	Rs.
Receipts per train mile	3·86	3·82	—0·04
Expenses do.	2·18	2·04	—0·14
Net receipts do.	1·68	1·78	+0·10
	Miles.	Miles.	Miles.
Open miles	1,490·234	1,490·351	+0·117
	Rs.	Rs.	Rs.
Receipts per open mile	22,674	23,094	+420
Expenses do.	12,784	12,316	—468
Net receipts do.	9,890	10,778	+888
Percentage of net earnings on Capital bearing interest	5·26	5·80	+0·54

The following table gives the details of earnings and working expenses for 1896 compared with 1895 :—

	1895.	1896.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	97,99,477	96,19,496	—1,79,981
Goods	2,36,07,088	2,43,89,684	+7,82,596
Electric Telegraph	75,216	81,485	+6,269
Sundries	3,08,412	3,28,964	+20,552
Total ...	3,37,90,193	3,44,19,629	+6,29,436
Working Expenses.			
Maintenance of way, works and stations.	45,58,115	47,44,622	+1,86,507
Locomotive expenses	74,56,219	73,43,666	—1,12,553
Carriage and wagon expenses ...	16,08,962	15,97,155	—11,807
Traffic expenses	29,37,420	29,11,607	—25,813
General charges	13,69,836	13,14,277	—55,559
Special and miscellaneous expenditure...	4,59,418	4,44,408	—15,010
Total ...	1,83,89,970	1,83,55,735	—34,235
Rent of leased lines	5,64,222	5,33,907	—30,315
Contribution to Provident Fund ...	97,570	1,09,390	+11,820
Total Working Expenses ...	1,90,51,762	1,89,99,032	—52,730
Net Earnings ...	1,47,38,431	1,54,20,597	+6,82,166

The mean mileage worked during the year was 1,490·351, the increase of 0·117 mile being due to the opening of the extension of Mohpani Branch to Gotitoria on 22nd November 1896. There was also an increase of about $3\frac{1}{8}$ miles in the sidings at Atgaon, Akola, Wardha, Itársi, Poona, Byculla, Parel Junction, Násik, Lanowli, Nándgaon, Jalgaon, Khandwa, Palasner, Gotitoria and Sholapur.

The gross earnings and working expenses of the year amounted respectively to Rs. 3,44,19,629 and Rs. 1,83,55,735 as against Rs. 3,37,90,193 and Rs. 1,90,51,762 in 1895, resulting in an increase in net earnings of Rs. 13,25,463.

The traffic which had been continually declining from 1892 to the end of 1895 showed signs of improvement in 1896, the increase amounting to Rs. 6,29,436 over the preceding year, and were it not for the prevalence of the Bubonic plague in the Bombay Presidency since September 1896, the improvement would probably have been more marked.

Earnings.

The following table compares the coaching traffic during 1896 with that of 1895 :—

	1895.		1896.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First Class	62,928	4,79,369	64,556	5,19,165	+1,628	+39,796
Second Class	312,564	7,46,068	345,336	8,05,395	+32,972	+59,327
Third Class, Mail ...	539,812	9,74,970	429,090	7,77,407	—110,722	—1,97,563
Do. other trains.	10,578,585	59,48,793	12,851,172	59,56,158	+2,272,587	+7,365
Total ...	11,493,689	81,49,200	13,690,154	80,58,125	+2,196,465	—91,075
Other receipts	...	16,50,277	...	15,61,371	...	—88,906
Grand Total ...	11,493,689	97,99,477	13,690,154	96,19,496	+2,196,465	—1,79,981

The total coaching traffic decreased by Rs. 1,79,981. Though the number of passengers carried, including season ticket-holders, increased by 2,196,465, the earnings from them decreased by Rs. 91,075. The other coaching receipts also decreased by Rs. 88,906. The largest increase in numbers (2,272,587) was in the 3rd class passengers by ordinary trains and was due partly to development of traffic, partly to the lowering of the ordinary 3rd class fare from $2\frac{1}{2}$ to 2 pies per mile, partly to the occurrence of the Sinhastha fair at Násik, and partly to the conveyance of passengers by tranship goods trains. The disproportion between the receipts, and the numbers is caused by the development of Bombay season-ticket suburban traffic augmented by the epidemic in the City.

The decrease in the 3rd class mail passenger traffic is accounted for by the reduction in the fares above referred to, which attracts passengers to the other trains.

The decrease in "Other receipts" is due to the running of fewer special trains for high Government officials and Native Rajas, the haulage of fewer special reserved carriages, the conveyance in 1895 of transport animals for the Chitral expedition, and the diversion of traffic during the wash-aways at Dudhi and Budlapur.

The following table shows the fluctuations in goods traffic as compared with the traffic for 1895 :—

	1895.		1896.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General merchandise ...	1,714,327	2,15,61,847	1,856,418	2,22,93,132	+142,091	+7,31,285
Military stores ...	8,104	1,65,751	10,411	2,05,470	+2,307	+39,719
Railway material for construction	31,060	33,655	26,832	30,267	-4,228	-3,388
Coal for public... ...	122,956	3,78,300	170,627	6,00,984	+47,671	+2,22,684
Coal for construction ...	206	872	66	345	-140	-527
Coal for Revenue ...	175,858	4,98,446	182,050	3,80,376	+6,192	-1,18,070
Revenue Stores ...	382,485	7,67,850	380,255	6,53,970	-2,230	-1,13,880
	No.		No.		No.	
Live-stock	335,767	1,67,447	370,327	1,87,001	+51,560	+19,554
Rents, &c.	...	32,920	...	38,139	...	+5,219
Total ...	2,434,996	2,36,07,088	2,626,659	2,43,89,684	+191,663	+7,82,596

The goods traffic improved to the extent of Rs. 7,82,596. The highest increase, Rs. 7,31,285 is under "General merchandize" while "coal for the public" brought in Rs. 2,22,684 more, specially on account of Singareni coal for mills and presses in Bombay and of Warora coal for those in the Nagpur District. The decreases under "Coal for Revenue" and "Revenue stores" are due to shorter average lead, reduced rate for Revenue stores, and consignment of smaller amount of permanent way materials to head-quarters.

The fluctuations in the more important commodities carried during 1895 and 1896 are shown in the following statement :—

	1895.		1896.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Coal and Coke	124,290	3,81,866	172,392	6,06,026	+48,102	+2,24,160
Cotton, Raw	191,748	44,66,601	190,863	42,17,686	-885	-2,48,915
Do. Manufactured	43,165	10,89,154	42,156	10,07,257	-1,009	-81,897
Drugs and Chemicals	19,161	2,75,184	25,674	3,48,891	+6,513	+73,707
Dyes and Tans	52,413	6,06,890	56,351	5,79,492	+3,938	-27,398
Grain and Pulse	412,233	35,18,089	447,057	37,16,816	+34,824	+1,98,727
Hides and Skins	16,055	3,57,243	16,508	3,88,943	+453	+31,700
Horns	1,112	23,023	1,255	25,090	+143	+2,067
Jute	20,813	2,92,023	22,510	3,04,950	+1,697	+12,927
Lac	700	8,165	502	6,719	-198	-1,446

	1895.		1896.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Leather, Manufactured ...	2,736	52,388	2,828	56,308	+92	+3,920
Liquors	9,299	1,49,748	9,407	1,45,654	+108	-4,094
Metals	43,869	6,72,787	42,332	6,71,060	-1,537	-1,727
Oils	42,206	6,62,796	46,262	6,69 311	+4,056	+6,515
Oil-seeds...	289,104	31,35,407	342,597	38,78,888	+62,493	+7,43,481
Opium	1,247	62,116	1,158	55,870	-89	-6,246
Paper and Pasteboard... ...	4,142	1,00,289	3,876	91,947	-266	-8,342
Provisions	78,150	11,60,902	73,067	10,38,557	-5,083	-1,22,345
Railway Plant, &c.	11,555	1,76,207	43,117	4,30,215	+31,562	+2,54,008
Salt	134,341	15,91,641	145,130	15,85,104	+10,789	-6,537
Saltpetre, &c.	3,155	46,439	3,077	41,907	-78	-4,532
Silk, Raw	29	1,163	32	1,319	+3	+156
Silk, Piece-goods	401	10,522	319	8,887	-82	-1,635
Spices	20,860	3,67,903	19,572	3,23,521	-1,288	-44,382
Stone and Lime...	16,645	1,04,874	19,432	1,11,494	+2,787	+6,620
Sugar	60,377	7,65,356	62,019	7,60,075	+1,642	-5,281
Tea	386	12,265	339	8,844	-47	-3,421
Timber	136,331	5,64,260	129,037	5,58,875	-7,294	-5 385
Tobacco	5,217	31,843	7,071	1,10,057	+1,854	+28,214
Wool, Raw	275	7,477	341	9,415	+66	+1,938
Do. Manufactured	1,183	24,239	1,181	24,165	-2	-94
All other Articles	111,189	13,37,018	109,994	13,16,244	-1,195	-20,774

While the traffic in oil-seeds, Railway plant, &c., coal and coke, and grain and pulse, showed increases of Rs. 7,43,481, Rs. 2,54,008, Rs. 2,24,160 and Rs. 1,98,727 respectively, that under cotton raw, provisions, and spices decreased by Rs. 2,48,915, Rs. 1,22,345, and Rs. 44,382 respectively. It is noticed that while rice showed a decrease of Rs. 3,32,689 the earnings from jowari and bajra increased by Rs. 2,07,712 in the 1st half and by Rs. 4,15,260 in the 2nd half of 1896 owing probably to the prevailing famine. Cotton, raw, receipts increased by Rs. 5,14,037 in the 1st half, but decreased by Rs. 7,62,952 in the 2nd half of the year under review. Under oil-seeds, the receipts from linseed increased by Rs. 5,99,157 and rape and mustard by Rs. 1,36,231. The earnings from wheat have decreased by Rs. 1,81,697.

The receipts from Telegraph traffic increased by Rs. 6,269 and sundry receipts by Rs. 20,552. The latter increase was caused by the gross receipts on account of shunting at joint stations being greater than the gross charges on the same account in 1896, while the reverse was the case in 1895.

Working Expenses.

The following are the principal fluctuations in the working expenses :—

(i) A net increase of Rs. 1,86,507 in maintenance of way, works and stations, due chiefly to the loss by exchange in the 1st half of 1896 and the restoration of bridges destroyed by the floods of 1895.

(ii) A net decrease of Rs. 1,12,553 in locomotive expenses, due partly to the reduction in the rate for carriage of revenue stores and partly to the change in the method of calculation of loss by exchange under which issues of Indian coal are excluded.

(iii) A net decrease of Rs. 11,807 in carriage and wagon expenses, due chiefly to loss by exchange in consequence of better rate and smaller outlay on Revenue stores.

(iv) A net decrease of Rs. 25,813 in traffic expenses, due to the reduction of station and train staff, the abolition of the Nagpur District and re-arrangement and revision of supervising staff.

(v) A net decrease of Rs. 55,559 in general charges, due chiefly to reduction in the staff of signallers, decrease in the number of rail posts erected, lower rates of exchange, compensation allowance, smaller charge for loss by exchange on stores and home establishment charges, absence of some officers on furlough, and smaller issues of furniture, fittings, &c.

(vi) A net decrease of Rs. 15,010 in special and miscellaneous expenses, due chiefly to reduction in the payment of commission on loans and debentures, and exchange thereon.

Rents of leased lines showed a decrease of Rs. 30,315, consequent on the decrease of traffic on the State Railways worked by the G. I. P. Railway.

The contribution to Provident Fund increased by Rs. 11,820, because the net earnings of the first half of 1896 on which it was calculated were proportionately greater than those of the first half of 1895.

The divisible surplus profits of the first half of 1896 at the date of submission of accounts amounted to Rs. 43,02,384, as against Rs. 32,37,282 in the preceding year. There were no surplus profits in the second half of 1896, the net earnings, amounting to Rs. 47,85,884, having fallen short of the guaranteed interest and rent of leased lines by Rs. 19,79,396. The shortage for the second half of 1895 was Rs. 16,50,197.

The gain to the State for 1896 was Rs. 1,65,546, and the figures for the last six years compare as follows :—

	Rs.	
1891	48,74,813	gain.
1892	32,86,836	„
1893	19,18,723	„
1894	44,277	„
1895	39,920	loss.
1896	1,65,546	gain.

The outstandings to be recovered, as ascertained on 25th March 1897, were Rs. 869 for the first half and Rs. 1,14,872 for the second half of 1896.

DHOND AND MANMAD AND WARDHA COAL STATE RAILWAYS—(*Standard Gauge*).

The result of the year's transactions as compared with the previous year are shown in the following table :—

Particulars.	DHOND AND MANMAD RAILWAY.			WARDHA COAL RAILWAY.		
	1895.	1896.	Difference.	1895.	1896.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	14,04,021	13,11,585	—92,436	1,93,551	2,06,078	+12,527
Working expenses	9,95,788	9,44,190	—51,598	1,17,189	1,22,218	+5,029
Net earnings	4,08,233	3,67,395	—40,838	76,362	83,860	+7,498
Percentage of expenses on earnings	70·92	71·99	1·07	60·54	59·31	—1·23
	Train miles.	Train miles.	Train miles.	Train miles.	Train miles.	Train miles.
Train mileage	524,889	497,610	—27,279	107,958	83,435	—24,523
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile... ...	2·67	2·64	—·03	1·79	2·47	+·68
Expenses per train mile ...	1·89	1·90	+·01	1·09	1·46	+·37
Net earnings per train mile ...	·78	·74	—·03	·70	1·01	+·31
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Open miles	145·44	145·44	.....	44·88	44·88	.....
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Earnings per open mile ...	9,653	9,018	—635	4,312	4,592	+280
Expenses per open mile ...	6,846	6,492	—354	2,611	2,723	+112
Net earnings per open mile ...	2,807	2,526	—281	1,701	1,869	+168
Percentage of net earnings on total capital outlay, including Suspense	3·61	3·23	—·38	1·53	1·68	+·15

The working expenses shown above for the Dhond and Manmad State Railway consist of the following :—

	1895. Rs.	1896. Rs.
(*a*) Amount paid to the G. I. P. Railway Company for working the line based on the sliding scale of percentages	9,82,815	9,31,226
(*b*) Amount paid to the Government Telegraph for interest on the capital cost of the Telegraph line	7,794	7,794
(*c*) Amount paid to G. I. P. Railway Company for interest at 4 per cent. on the Capital cost of Dhond and Manmad Permanent staff quarters.	5,179	5,170
	9,95,788	9,44,190

The working expenses of the Wardha Coal State Railway shown above consist of the following:—

	1895. Rs.	1896. Rs.
(*a*) Amount paid to the G. I. P. Railway Company for working calculated at the same percentage on the gross earnings of the Wardha Coal State Railway as represents the percentage of working expenses on the gross earnings of the Company's line, including Branch lines worked.	1,06,026	1,10,429
(*b*) 5 per cent. for use of Company's rolling stock...	9,678	10,304
(*c*) Amount paid to the Government Telegraph Department for interest and rent, &c. ...	1,485	1,485
	1,17,189	1,22,218

Traffic and Working.

The revenue derived during 1896 is compared with that of the preceding year in the following table:—

Particulars.	Dhond and Manmad.			Wardha Coal.		
	1895.	1896.	Difference.	1895.	1896.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	6,69,911	5,86,412	−83,499	39,000	43,520	+4,580
Goods...	7,25,473	7,15,796	−9,677	1,52,542	1,60,501	+7,959
Electric Telegraph ...	2,802	2,694	−108	589	637	+48
Sundries	5,835	6,683	+848	1,420	1,420	...
	14,04,021	13,11,585	−92,436	1,93,551	2,06,078	12,527

The following statement shows the receipts derived from the several classes of passengers during 1896 compared with 1895:—

	Dhond and Manmad.						Wardha Coal.					
	1895.		1896.		Difference.		1895.		1896.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
First Class	2,789½	14,899	2,834	14,791	44½	−108	390	1,114	327	891	−63	- 223
Second Class	10,392	24,301	11,322	26,249	930	1,948	303	422	406½	580	103½	158
Third Class by mail ...	...	..	..	...	...	...	480	287	540½	332	60½	45
Third Class by other trains...	773,361½	5,38,178	895,433½	4,83,526	122,072	−54,652	125,176	34,318	140,569	38,651	15,393	4,333
Total ...	786,543	5,77,378	909,589½	5,24,566	123,046½	−52,812	126,349	36,141	141,843	40,454	15,494	4,313
Other Receipts... ...	..	92,583	...	61,846	...	−30,687	..	2,859	..	3,066	..	207
Total Coaching ...	786,543	6,69,911	909,589½	5,86,412	123,046½	−83,499	126,349	39,000	141,843	43,520	15,494	4,520

The important variations are the decreases on the Dhond and Manmad State Railway under "Third class by other trains" and "Other receipts" and on the Wardha Coal State Railway the increase under "Third class by other trains."

The goods traffic during 1896 under each of the classified heads is compared with the year 1895 in the subjoined statement :—

Particulars.	Dhond and Manmad.			Wardha Coal.		
	1895.	1896.	Difference.	1895.	1896.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Merchandise, General ...	6,93,919	6,86,238	—7,681	65,412	74,848	+9,436
Military Stores	10,151	9,130	—1,021	31	17	—14
Railway Material for Construction	490	366	—124	2	24	+22
Coal	3,712	2,861	—851	85,755	84,740	—1,015
Revenue Stores... ...	10,560	9,831	—729	954	575	—379
Other items	6,641	7,370	+729	388	296	—92
Total ...	7,25,473	7,15,796	—9,677	1,52,542	1,60,500	7,958

The important variations are the decrease on the Dhond and Manmad and increase on the Wardha Coal State Railways under "Merchandise, General."

THE BERAR STATE RAILWAYS—(*Standard Gauge*).

These lines are worked by the G. I. P. Railway Company. The results of the year's transactions are compared with those of 1895 in the following table :—

Particulars.	Khamgaon.			Amraoti.		
	1895.	1896.	Difference.	1895.	1896.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	64,227	58,360	—5,867	97,817	1,04,111	+1,294
Working expenses	38,196	33,913	—4,283	59,565	61,240	+1,675
Net earnings	26,031	24,447	—1,584	38,252	42,871	+4,619
Percentage of expenses on earnings	59·47	58·11	—1·36	60·89	58·82	—2·07
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Train mileage	16,892	14,854	—2,038	23,570	23,880	+310
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile	3·80	3·93	+·13	4·15	4·36	·21
Expenses per train mile	2·26	2·28	+·02	2·53	2·56	+·03
Net receipts per train mile ...	1·54	1·65	+·11	1·62	1·79	+·17
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Open miles	7·55	7·55	...	5·44	5·44	...
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Earnings per open mile	8,506	7,730	—776	17,981	19,138	+1,157
Expenses per open mile	5,059	4,492	—567	10,949	11,257	+308
Net earnings per open mile ...	3,447	3,238	—209	7,032	7,881	+849
Percentage of net earnings on Total Capital outlay, including Suspense	4·99	4·68	—·31	8·50	9·50	+1·00

The working expenses shown above consist of the following :—

	Khamgaon.		Amraoti.	
	1895.	1896.	1895.	1896.
	Rs.	Rs.	Rs.	Rs.
Paid to the Company at their rate of working expenses on gross receipts ...	34,985	30,996	53,789	55,149
5 per cent. for use of Company's Rolling Stock	3,211	2,917	4,891	5,205
Interest on Capital cost of additional short platform at Badnera Station ...	...	...	885	885
Total ...	38,196	33,913	59,565	61,239

Traffic and Working.

The figures for 1895 and 1896 under the four main heads of receipts are compared in the subjoined table:—

	Khamgaon.			Amraoti.		
	1895.	1896.	Difference.	1895.	1896.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	12,776	12,643	—133	29,896	30,333	+437
Goods	51,096	45,286	—5,810	66,451	72,787	6,336
Electric Telegraph	148	157	+9	1,286	864	—422
Sundries	207	274	+67	184	127	—57
Total ...	64,227	58,360	—5,867	97,817	1,04,111	+6,294

The coaching receipts for the year under review were derived from—

	Khamgaon Railway.						Amraoti Railway.					
	1895.		1896.		Difference.		1895.		1896.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
First Class	346	179	195½	101	—150½	—78	1,249	463	1,225	453	—24	—10
Second Class ...	1,261½	311	1,202	808	—59½	—3	6,429	1,188	6,172	1,152	—257	—36
Third Class... ...	105,837½	11,585	124,052	11,661	18,214½	76	341,383	26,717	432,984½	27,115	91,601½	398
Total ...	107,445	12,075	125,449½	12,070	18,004½	—5	349,061	28,368	440,381½	28,720	91,320½	352
Other receipts ...	...	701	.....	573	...	—128	...	1,528	...	1,613	...	85
Total ...	107,445	12,776	125,449½	12,643	18,004½	—133	349,061	29,896	440,381½	30,333	91,320½	437

The goods traffic during 1896 under each of the classified heads is as follows:—

Particulars.	Khamgaon Railway.			Amraoti Railway.		
	1895.	1896.	Difference.	1895.	1896.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Merchandise, General ...	50,387	45,032	—5,355	64,865	70,235	+,5370
Military Stores	2	...	—2	74	123	+49
Railway Material for Construction	2	1	—1	...	244	+244
Coal	141	53	—88	1,158	1,566	+408
Revenue Stores	346	14	—332	10	60	+50
Other Goods Traffic... ...	218	186	—32	344	559	+215
Total ...	51,096	45,286	5,810	66,451	72,787	6,336

B. B. AND C. I. RAILWAY—(*Standard Guage*).

General Results.

The result of the year's transactions as compared with 1895 is shown in the subjoined table :—

	1895.	1896.	Difference.
	Rs.	Rs.	Rs.
Gross Earnings	1,75,53,067	1,62,03,933	—13,49,134
Working Expenses	65,05,529	72,13,163	+707,634
Net Earnings	1,10,47,538	89,90,770	—20,56,768
Percentage of Expenses on Earnings ...	37·06	44·51	+7·45
	Miles.	Miles.	Miles.
Train mileage	2,610,893	2,467,880	—143,013
	Rs.	Rs.	Rs.
Receipts per train mile	6·72	6·57	—0·15
Expenses per do.	2·49	2·93	+0·44
Net receipts per do.	4·23	3·64	—0·59
	Miles.	Miles.	Miles.
Open miles	461	461	.....
	Rs.	Rs.	Rs.
Receipts per open mile	38,076	35,150	—2,923
Expenses per do.	14,112	15,647	+1,535
Net receipts per do.	23,964	19,503	—4,461
Percentage of net Earnings on Capital bearing Interest	11·14	8·68	—2·46

The total amount payable to the Railway Company on account of surplus profits in comparsion with 1895 is shown in the following table :—

	1895.	1896.	Difference.
	Rs.	Rs.	Rs.
Net Earnings	1,10,47,538	89,90,770	—20,56,768
Deduct—			
Guaranteed Interest	46,55,632	46,89,598	33,966
Interest on overdrawn Capital ...	6,192	55,007	48,815
Contribution to Provident Fund ...	1,10,475	89,908	—20,567
Total ...	47,72,299	48,34,513	62,214
Balance surplus profits ...	62,75,239	41,56,257	—21,18,982
Moiety payable to the Company ...	31,37,619	20,78,128	—10,59,491
Guaranteed Interest	46,55,632	46,89,598	33,966
Add—			
(*a*) Total payable to the Company...	77,93,251	67,67,726	—10,25,525
Percentage on total Capital bearing Interest, *viz.*,Rs. 10,35,07,636, for 1896	7·86	6·53	—1·33
(*b*) Amount payable to the Company for Rajputana-Malwa Railway ($\frac{5}{8}$th of surplus profits for 1896) ...	14,48,444	824,542	—623,902
Total payable to the Company (*a*+*b*)...	92,41,695	75,92,268	—16,49,427
Percentage on total Capital bearing Interest	9·32	7·33	—1·99

Traffic and Working.

The following table gives the details of earnings and working expenses for the year 1896 as compared with 1895 :—

	1895.	1896.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	53,43,524	56,33,398	+2,89,874
Goods	119,18,571	1,01,87,587	−17,30,934
Electric Telegraph	47,443	53,437	+5,994
Sundries	2,43,529	3,29,511	+85,982
Total ...	1,75,53,067	1,62,03,933	−13,49,134
Working Expenses.			
Maintenance of way, works and stations .	14,96,482	22,50,406	+7,53,924
Locomotive expenses	26,74,051	26,62,585	−11,466
Carriage and Wagon expenses ...	5,80,837	5,85,806	+4,969
Traffic expenses	9,81,255	9,99,263	+18,008
General charges	5,55,914	5,65,705	+9,791
Special and Miscellaneous expenditure ...	2,16,990	1,49,398	−67,592
Total ...	65,05,529	72,13,163	+7,07,634
Net Earnings ...	1,10,47,538	89,90,770	−20,56,768

The following table compares the coaching traffic during 1895 with that of 1896 :—

	1895.		1896.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First Class ...	129,993	1,46,278	136,826	1,48,776	+6,833	+2,498
Second Class ...	1,134,824	3,91,918	1,210,535	4,35,010	+75,711	+43,092
Intermediate Class .	541,609	8,26,540	548,799	8,51,736	+7,190	+25,196
Third Class... ...	14,248,038	33,10,858	14,777,339	35,19,106	+529,301	+2,08,248
Total ...	16,054,464	46,75,594	16,673,499	49,54,628	+619,035	+2,79,034
Other receipts ..	...	6,67,930	...	6,78,770	...	+10,840
Total ...	...	53,43,524	...	56,33,398	...	2,89,874

The increase in the number of passengers carried and the earnings therefrom amounted to 619,035 and Rs. 2,79,034 respectively. The improvement is due to development of passenger traffic under all classes.

The total increase was derived from :—

	No.	Rs.
Ordinary passenger traffic	408,595	2,66,629
Season tickets	210,440	12,405
	619,035	2,79,034

The increase under "other receipts" is chiefly due to an increase in receipts from parcels carried for the public and also from the carriage of military horses.

The following table shows the fluctuations in goods traffic, as compared with the traffic for 1895 :—

	1895.		1896.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General Merchandise ...	1,326,241	1,06,61,476	1,203,389	90,83,569	—122,852	—15,77,907
Military Stores ...	1,080	37,413	969	28,223	—111	—9,190
Railway materials for construction ...	77,617	83,452	142,415	1,50,437	+64,798	+66,985
Coal for the public ...	73,510	4,32,136	52,571	2,97,389	—20,939	—1,34,747
Coal for construction ...	1,073	1,912	1,136	2,439	+63	+527
Coal for Revenue ...	83,565	2,13,977	89,412	1,79,289	+5,847	—34,688
Revenue Stores ...	79,564	92,131	76,965	89,382	—2,599	—2,749
Total ...	1,642,650	1,15,22,497	1,566,857	98,30,728	—75,793	—16,91,769
	No.		No.		No.	
Live Stock ...	536,091	3,87,334	484,021	3,46,802	—52,070	—40,532
Rents, &c. ...		8,740	...	10,057		+1,317
Total ...	...	1,19,18,571	...	1,01,87,587	...	—17,30,984

Fluctuations in the principal commodities carried during 1895 and 1896 are shown in the following statement:—

Description of Goods.	1895.		1896.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Coal and coke for the public and foreign railways ...	73,510	4,32,136	52,571	2,97,389	—20,939	—1,34,747
Cotton, raw ...	130,424	15,46,446	146,788	15,59,555	16,364	13,109
Cotton, manufactured...	31,902	6,30,318	31,891	6,10,938	—11	—19,380
Drugs and chemicals ...	3,870	56,857	3,401	50,322	—469	—6,535
Dyes and tans ...	10,601	1,76,508	8,911	1,46,910	—1,690	—29,598
Grain and pulse ...	258,010	17,73,833	159,546	10,01,146	—98,464	—7,72,687
Hides and skins ...	3,916	53,291	3,552	53,116	—364	—175
Jute	10,468	1,22,019	10,281	1,13,249	—187	—8,770
Leather, manufactured .	1,117	19,536	1,015	18,321	—102	—1,215
Liquors	3,817	45,083	4,190	50,983	373	5,900
Metals	39,451	5,20,265	38,709	5,12,709	—742	—7,556
Oils	9,222	1,12,214	10,987	1,24,468	1,765	12,254
Oil-seeds	167,289	15,25,967	118,224	10,70,111	—49,065	—4,55,856
Opium	1,396	53,197	1,384	52,479	—12	—718
Paper and pasteboards...	1,496	23,765	1,298	20,191	—198	—3,574
Provisions	51,667	4,90,120	40,042	3,81,214	—11,625	—1,08,906
Railway plant and rolling stock carried for the public and foreign railways	28,891	1,97,575	40,927	1,92,354	12,036	—5,221
Salt	133,301	4,15,553	134,899	4,18,306	1,598	2,753
Spices	11,660	1,37,971	8,921	1,07,107	—2,739	—30,864
Stone and lime ...	29,340	98,551	33,345	1,01,831	4,005	3,280
Sugar	51,618	6,74,667	48,816	6,09,074	—2,802	—65,593
Tea	1,034	16,652	1,513	18,539	479	1,887
Timber	46,606	3,27,982	39,335	2,75,036	—7,271	—52,946
Tobacco	19,710	1,53,596	26,192	2,00,328	6,482	46,732
Wool, raw... ...	6,031	1,35,715	5,295	1,20,730	—736	—14,985
Firewood	50,294	1,81,421	50,485	1,90,647	191	9,226
Hay and grass ...	32,743	1,40,733	35,394	1,47,011	2,651	6,278
Mowra flowers and seeds	22,037	1,38,406	13,177	75,274	—8,860	—63,132
All other articles of merchandise ...	169,410	9,30,648	185,840	8,89,875	16,430	—40,773
Total ...	1,400,831	1,11,31,025	1,256,929	94,09,213	—143,902	—17,21,812

It will be seen from the above that the decrease is due chiefly to a diminution of earnings from "general merchandise" and has occurred principally in grain and pulse, oil-seeds, provisions, sugar, spices, timber, and mowra flowers and seeds. Receipts from coal carried for the public have fallen off considerably. These decreases are attributable to failure of foreign and local traffic generally. There has, during the year under review, been a large increase in traffic in tobacco.

Working Expenses.—Fluctuations in working expenses, except under the two heads mentioned below, have been small and need no explanation.

Maintenance of way, works and stations.—The increase of Rs. 7,53,924 is chiefly due to abnormal expenditure on the renewal of Warren girders and in a lesser degree to more extensive renewals of permanent-way material during the first half of the year, the length of line renewed being 4·50 miles as against 1·13 miles in the corresponding period of 1895.

Special and Miscellaneous Expenses.—The decrease of Rs. 67,592 is attributable to the heavy claims during 1895 for damage to goods caused by excessive rain.

H. H. THE GÁEKWÁR'S RAILWAYS—(*Metre Gauge*).

The chief features of the year's transactions are compared with those for 1895 in the following table:—

	DABHOI RAILWAY.			PETLÁD RAILWAY.			MEHSÁNA RAILWAY.		
	1895.	1896.	Difference.	1895.	1896.	Difference.	1895.	1896.	Difference.
	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	2,34,473	2,58,788	+24,315	73,849	85,033	*+11,184	3,38,445	†3,42,449	+4,004
Working expenses ...	1,37,709	1,33,130	—4,579	27,307	34,693	+7,386	1,36,005	1,52,021	+16,016
Net earnings	96,764	1,25,658	+28,894	46,584	50,340	+3,756	2,02,440	1,90,428	—12,012
Percentage of working expenses to earnings...	58·74	51·44	—7·30	36·96	40·80	+3·84	40·19	44·39	+4·20
	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.
Train miles	76,944	83,989	+7,045	19,541	19,478	—66	1,09,482	1,02,051	—7,431
	Rs.	Rs-	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile...	3·05	3·08	+·03	3·78	4·37	+·59	3·09	3·36	+0·27
Expenses do. ...	1·79	1·59	—·20	1·40	1·78	+·38	1·24	1·49	+0·25
Net receipts do. ...	1·26	1·49	+·23	2·38	2·59	+·21	1·85	1·87	+0·02
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Open miles	71·66	71·66	...	13·35	13·35	...	92·63	92·63	...
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per open mile...	3,272	3,611	+339	5,535	6,370	+835	3,654	3,697	+43
Expenses do. ...	1,922	1,857	—65	2,046	2,599	+553	1,468	1,641	+173
Net receipts do. ...	1,350	1,754	+404	3,489	3,771	+282	2,186	2,056	—130
Percentage of net earnings on total capital expended, including suspense	5·07	6·05	+·98	6·44	6·89	·45	...	...	...

* Is exclusive of Rs. 32,507 on account of terminals relating to previous years and paid to the Durbar during first half of 1896.
† Exclusive of Rs. 80,833-9-3 for terminal charges relating to previous years.

The gross earnings and working expenses for the two years 1895 and 1896 are compared in the following table:—

	DABHOI RAILWAY.			PETLÁD RAILWAY.			MEHSÁNA RAILWAY.		
	1895.	1896.	Difference.	1895.	1896.	Difference.	1895.	1896.	Difference.
Earnings.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching...	1,37,668	1,48,548	+10,880	50,427	52,003	+1,576	1,73,291	1,80,486	+7,195
Goods	94,064	1,06,931	+12,867	21,586	*32,096	+10,510	1,58,428	1,56,239	—2,189
Electric Telegraph ...	1,487	2,224	+737	357	478	+121	4,118	4,907	+789
Sundries	1,254	1,085	—169	1,521	456	—1,065	2,608	817	—1,791
Total ...	2,34,473	2,58,788	+24,315	73,891	85,033	+11,142	3,38,445	3,42,449	+4,004
Working Expenses.									
Maintenance of way, works and stations ...	40,649	37,780	—2,869	5,815	8,257	+2,442	23,519	30,013	+6,494
Locomotive expenses ...	41,979	40,536	—1,443	11,421	14,115	+2,694	57,666	58,695	+1,029
Carriage and wagon expenses	20,963	24,027	+3,064	2,517	3,140	+623	13,800	15,344	+1,544
Traffic expenses... ...	21,639	20,200	—1,439	4,228	5,336	+1,108	21,913	25,627	+3,714
General charges... ...	12,479	10,569	—1,910	2,334	3,031	+637	16,848	19,733	+2,885
Special and miscellaneous expenditure	...	18	+18	932	814	—118	2,259	2,609	+350
Total ...	1,37,709	1,33,130	—4,579	27,307	34,693	+7,386	1,36,005	1,52,021	+16,016
Net Earnings ...	96,764	1,25,658	28,894	46,584	50,340	+3,756	2,02,440	1,90,428	—12,212

* Is exclusive of Rs. 32,507 on account of terminals relating to previous years and paid to the Durbar during first half of 1896.

Earnings.

The following table compares the coaching traffic during 1895 with that of 1896:—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	Passengers.		Other receipts.	Passengers.		Other receipts.	Passengers.		Other receipts.
	No.	Rs.	Rs.	No.	Rs.	Rs.	No.	Rs.	Rs.
1895 ...	428,593	1,32,252	5,416	279,558	48,315	2,112	670,890	1,64,186	9,105
1896 ...	473,147	1,43,043	5,505	281,696	49,736	2,267	697,503	1,70,863	9,623
Difference.	+44,554	+10,791	+89	+2,138	+1,421	+155	+26,613	+6,677	+518

The increase on the Petlad and Dabhoi Railways in the number of passengers carried and the earnings therefrom is chiefly in the third class traffic.

The following table shows the tonnage lifted and the receipts from goods traffic during 1895, compared with those of 1896 under the classified heads:—

	1895.		1896.		Difference.	
Dabhoi Railway.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Merchandise, general ...	42,428	92,028	49,893	1,04,614	+7,465	+12,586
Railway material for construction	333	140	13	10	—320	—130
Coal for the public	188	321	397	422	+209	+101
Do. for revenue	309	179	237	120	—72	—59
Revenue stores	2,268	1,100	2,857	1,345	+589	+245
Total, goods ...	45,526	93,768	53,397	1,06,511	+7,871	+12,743
	No.		No.		No.	
Live-stock	813	59	2,050	160	+1,237	+101
Rents, &c.	...	237	...	260	...	+23
Total ...	...	94,064	...	1,06,931	...	+12,867
Petlad Railway.						
Merchandise, general ...	22,063	20,836	24,296	31,296	+2,233	+10,460
Coal for the public	5	4	...	...	—5	—4
Do. for revenue	597	162	401	93	—196	—69
Revenue stores	46	13	62	17	+16	+4
Total, goods ...	22,711	21,015	24,759	31,406	+2,048	+10,391
	No.		No.		No.	
Live stock	1,167	302	1,705	501	+538	+199
Rents, &c.	...	269	...	189	...	—80
Total ...	...	21,586	...	32,096	...	10,510
Mehsana Railway.						
Merchandise, general ...	116,092	1,53,605	94,386	1,55,072	—21,696	+1,467
Military stores	4	16	3	11	—1	—5
Railway materials for construction	7,176	3,464	551	304	—6,625	—3,160
Coal for the public	8	15	7	14	—1	—1
Revenue stores	912	241	80	37	—832	—204
Total, goods ...	124,192	1,57,341	95,037	1,55,438	—29,155	—1,903
	No.		No.		No.	
Live stock	1,517	345	1,347	238	—200	—107
Rents, &c.	...	742	...	563	...	—179
Total ...	...	1,58,428	...	1,56,239	...	—2,189
Dabhoi Railway.						
Cotton, raw	2,685	6,601	7,529	16,332	+4,844	+9,731
Cotton, manufactured ...	468	1,473	566	1,778	+98	+305
Oil-seeds	1,980	4,253	2,482	5,107	+502	+854
Mowra flowers and seeds ...	8,354	14,224	5,809	15,363	—2,545	+1,139

	1895.		1896.		Difference.	
Dabhoi Railway—contd.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Metals	697	1,526	768	1,661	+71	+135
Grain and pulse	8,571	21,150	9,126	16,739	+555	—4,411
Firewood	4,165	7,526	3,490	6,770	—675	—756
Provisions	1,347	3,650	1,297	3,389	—50	—261
Salt	2,226	3,752	2,206	3,912	—20	+160
Stone and lime	1,842	2,460	2,003	2,755	+161	+295
Sugar...	1,129	1,919	1,233	2,261	+104	+342
Timber	2,272	5,225	1,894	4,534	—378	—691
All other articles of merchandise	6,880	18,590	11,887	24,435	+5,007	+5,845
Total ...	42,616	92,349	50,290	1,05,036	+7,674	+12,687
Petlad Railway.						
Cotton, raw	639	773	1,079	1,126	+440	+353
Cotton, manufactured ...	634	874	658	843	+24	—31
Grain and pulse	1,600	1,043	2,773	1,996	+1,173	+953
Oil-seeds	368	229	591	489	+223	+260
Salt	832	809	858	1,016	—24	+207
Stone and lime	2,348	1,731	1,379	984	—969	—747
Sugar...	682	588	646	597	—36	+9
Timber	2,157	1,719	1,097	899	—1,060	—820
Tobacco	7,477	8,080	10,579	11,114	+3,102	+3,034
All other articles of merchandise	5,281	4,994	4,636	12,232	—645	+7,238
Total ...	22,068	20,840	24,296	31,296	+2,228	+10,456
Mehsana Railway.						
Cotton, raw	791	2,758	798	2,080	+7	—678
Cotton, manufactured ...	1,475	3,458	1,543	3,615	+68	+157
Firewood	1,443	2,250	1,325	2,051	—118	—199
Grain and pulse	19,540	30,218	19,443	39,564	—97	+9,346
Jute	903	1,412	787	1,303	—116	—109
Metals	1,046	1,627	949	1,432	—97	—195
Mowra flowers and seeds ...	1,279	1,479	1,086	1,116	—193	—363
Oils	1,087	2,671	1,186	2,563	+99	—108
Oil-seeds	43,129	35,946	23,599	22,464	—19,530	—13,482
Provisions	2,832	5,197	1,959	3,244	—873	—1,953
Salt	21,867	34,812	21,883	33,921	+16	—891
Stone and lime	2,057	3,893	1,610	3,357	—447	—536
Sugar...	5,839	8,117	6,819	9,715	+980	+1,598
Timber	3,959	5,448	3,304	4,322	—655	—1,126
All other articles of merchandise	8,857	14,349	8,115	24,350	—742	+10,001
Total ..	116,104	1,53,635	94,406	1,55,097	—21,698	+1,462

Dabhoi Railway.—The principal increase was in cotton, raw, mowra flowers and other articles of merchandise. There was a large decrease in receipts from grain and pulse, Rs. 4,411, although there was an increase in quantity carried of 555 tons.

Petlad Railway.—The fluctuations were unimportant, the principal one being an increase of 3,102 tons Rs. 3,034 in tobacco and of Rs. 7,238 in other articles of merchandise.

Mehsana Railway.—The total public traffic fell off by 21,698 tons, but receipts were better by Rs. 1,462. The noticeable fluctuations were an increase of Rs. 9,346 under "grain and pulse" and a decrease of 19,530 tons Rs. 13,482 under oil-seeds due to famine.

Working Expenses.

On the Dabhoi Railway there was a decrease of Rs. 2,869 in maintenance of way, works and stations, due to smaller expenditure on renewals of permanent way and repairs of flood damages; a decrease of Rs. 1,443 in "locomotive expenses" was due to smaller expenditure on maintenance of engines, and increase of Rs. 3,064 in "carriage and wagon expenses" to the repairs and renewals of

goods vehicles during the year; and a decrease of Rs. 1,439 in "traffic expenses" to smaller expenditure on station staff and on wagon covers.

On the Petlad and Mehsana Railways, working expenses under the different abstracts are calculated at the same percentage on gross earnings as prevails on the Bombay, Baroda and Central India and Rajputana-Malwa Railways respectively in each half-year.

RAJPUTANA-MALWA RAILWAY—(*Metre Gauge*).

INCLUDING THE GODHRA-RUTLAM-NAGDA RAILWAY—(*Broad Gauge*).

The working results of the year's transactions, as compared with those of 1895, are shown in the following table :—

	1895.	1896.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	2,45,42,974	2,10,21,002	—35,21,972
Working expenses	1,00,73,779	95,55,625	—518,154
Net earnings	1,44,69,195	1,14,65,377	—30,03,818
Percentage of working expenses to earnings	41·05	45·46	+4·41
Interest	72,33,232	73,48,855	+1,15,623
Gross divisible surplus	72,42,218	41,22,710	—31,19,508
One-fifth share payable to the Company...	14,48,444	8,24,542	—6,23,902
	Train Miles.	Train Miles.	Train Miles.
Train mileage	6,543,904	5,583,893	—960,011
	Rs.	Rs.	Rs.
Receipts per train mile	3·75	3·76	+0·01
Expenses do.	1·54	1·71	+0·17
Net receipts do.	2·21	2·05	—0·16
	Miles.	Miles.	Miles.
Open miles	1,789·272	1,814·841	+25·569
	Rs.	Rs.	Rs.
Receipts per open mile	13,717	11,583	—2,134
Expenses do.	5,630	5,265	—365
Net receipts do..	8,087	6,318	—1,769
Percentage of net earnings on total capital outlay, excluding indirect charges ...	9·61	7·63	—1·68

Traffic and Working.

The total open mileage on 31st December 1896 was 1,814·841 (1,673·931 miles metre gauge and 140·910 miles broad gauge) and the mean mileage worked during the year was 1,805·622.

The gross earnings and working expenses for the two years 1895 and 1896 are compared in the following table :—

	1895.	1896.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	76,66,152	73,48,863	—3,17,289
Goods	1,64,43,782	1,32,20,897	—32,22,885
Electric Telegraph	67,576	81,350	+13,774
Sundries	3,65,464	3,69,892	+4,428
Total ...	2,45,42,974	2,10,21,002	—35,21,972
Working Expenses.			
Maintenance of way, works and stations .	17,49,920	19,20,111	+1,70,191
Locomotive expenses	43,33,157	37,75,581	—5,57,576
Carriage and wagon expenses ...	9,99,634	9,34,767	—64,867
Traffic expenses...	16,05,135	15,66,990	—38,145
General charges...	12,26,972	12,03,655	—23,317
Special and miscellaneous expenditure ...	1,58,961	1,54,521	—4,440
Total ...	1,00,73,779	95,55,625	—5,18,154
Net Earnings ...	1,44,69,195	1,14,65,377	—30,03,818

The following statement shows the receipts under coaching derived from the several classes of passengers, and the number carried :—

	1895.		1896.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First Class	19,255	1,84,586	19,217	1,42,047	—38	+7,461
Second Class	78,286	2,20,750	69,236	2,14,420	—9,050	—6,330
Intermediate Class	291,451	3,33,558	2,66,992	2,93,895	—24,459	—39,663
Third Class	11,064,460	60,61,361	11,076,862	59,51,187	+12,402	—1,10,174
Total ...	11,453,452	67,50,255	11,432,307	66,01,549	—21,145	—1,48,706
Other Receipts ...	.....	9,15,897	.....	7,47,314	...	—1,68,583
Total Coaching ...	.....	76,66,152	11,432,307	73,48,863	—21,145	—3,17,289

The decrease in coaching traffic is ascribed to a diminution in the movement of marriage parties owing to the greater part of the year being considered inauspicious for Hindu marriages, to a smaller attendance at fairs and to the conveyance of troops, &c., for the Chitral Expedition in 1895.

The following table shows the goods traffic during 1896 compared with that of 1895 under the classified heads :—

	1895.		1896.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Merchandise, general	17,42,261	1,55,05,206	1,485,027	1,24,49,738	—257,234	—30,55,468
Military stores	5,142	97,992	5,558	84,420	+416	—13,572
Railway material for construction.	92,815	1,41,534	70,217	97,799	—22,598	—43,735
Coal for the public	10,407	40,135	10,790	43,073	+383	+2,938
Do. for construction	9,924	24,777	10,510	22,187	+586	—2,590
Do. for revenue	109,546	4,11,803	87,307	2,74,619	—22,239	—1,37,184
Revenue stores	64,061	1,22,748	91,226	1,56,797	+27,165	+34,049
Total Goods ...	2,034,156	1,63,44,195	1,760,635	1,31,28,633	—273,521	—32,15,562
	No.		No.		No.	
Live stock	165,845	76,512	1,47,497	67,949	18,348	—8,563
Rents, &c.	... ..	23,842	.....	25,099	...	+1,257
Gross Total ...	.....	1,64,44,549	... ..	1,32,21,681	...	—32,22,868
Less—Outstandings irrecoverable.	.....	767	.....	784	...	—17
Net Total ...	.....	1,64,43,782	.....	1,32,20,897	...	—32,22,885

The quantities of the principal commodities carried during 1895 and 1896 and the earnings therefrom will be found in the following table :—

	1895.		1896.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Coal and coke carried for the public and foreign railways ...	10,407	40,135	10,790	43,073	+383	+2,938
Cotton, raw	85,413	12,95,434	74,794	11,81,416	—10,619	—1,14,018
Cotton, manufactured	37,449	8,71,259	33,186	7,63,515	—4,263	—1,07,744
Drugs and Chemicals	2,428	46,844	2,120	42,081	—308	—4,763
Dyes and Tans	12,568	1,81,486	10,378	1,53,912	—2,190	—27,574
Firewood	29,864	57,596	36,816	64,913	+6,952	+7,317
Grain and Pulse	621,904	49,13,211	469,354	29,67,332	—152,550	—19,45,879
Hides and Skins...	7,996	89,327	7,259	81,970	—737	—7,357
Jute	22,972	1,80,277	19,687	1,59,506	—3,285	—20,771
Leather, manufactured	1,380	27,991	942	18,949	—438	—9,042
Liquors	3,779	43,219	3,619	45,176	—160	+1,957
Metals	32,323	4,19,932	31,214	3,89,384	—1,109	—30,548
Mowra flowers and seeds ...	6,426	36,171	4,974	30,027	—1,452	—6,144
Oils	9,219	84,178	9,618	85,155	+399	+977
Oil-seeds	233,304	14,86,040	139,287	7,85,828	—94,017	—7,00,212
Opium	3,987	65,688	4,149	67,213	+162	+1,525
Paper and Pasteboard	1,309	23,843	1,367	25,160	+58	+1,317
Provisions	52,208	4,94,849	49,883	4,48,844	—2,325	—46,005
Railway Plant and Rolling Stock carried for the public and foreign railways	20,627	1,11,047	27,496	1,51,120	+6,869	+40,073
Salt	226,198	21,13,703	212,349	19,66,221	—13,849	—1,47,482
Saltpetre, &c.	14,106	83,669	18,125	1,02,507	+4,019	+18,838
Spices	17,552	2,05,223	14,306	1,56,329	—3,246	—48,894
Stone and Lime	22,657	88,221	25,088	1,01,347	+2,431	+13,126
Sugar	131,166	12,76,341	128,714	12,96,539	—2,452	+20,198
Tea...	1,039	30,203	1,290	32,360	+251	+2,157
Timber	26,175	1,11,006	26,448	1,13,141	+273	+2,135
Tobacco	15,281	1,94,935	19,199	2,43,065	+3,918	+48,130
Wool, raw	6,899	1,31,390	7,033	1,20,907	+134	—10,483
Wool, manufactured	831	21,702	771	22,575	—60	+873
All other articles of merchandise.	100,343	9,18,413	111,119	9,17,666	+10,776	—747
Total ...	1,757,810	1,56,43,333	1,501,375	1,25,77,231	—256,435	—30,66,102

Under "General Merchandise" the principal decreases were in cotton, raw, 10,619 tons Rs. 1,14,018, in cotton, manufactured, 4,263 tons Rs. 1,07,744, in grain and pulse 152,550 tons Rs. 19,45,879, in oil-seeds 94,017 tons Rs. 7,00,212 and in salt 13,849 tons Rs. 1,47,482, all due to famine.

In working expenses there were decreases under all the heads except "Maintenance of way, works and stations" which had an increase of Rs. 1,70,191, owing to payment of grain compensation allowance, heavy expenditure on ballast on the Godhra-Ratlam-Nagda Railway, heavier renewal of sleepers on the metre gauge line and to write-off of depreciation on Choral bridge girders and surplus stores. The decreases under "Locomotive Expenses", "Carriage and wagon expenses" "Traffic expenses" "General charges" and "Special and Miscellaneous expenditure" of Rs. 5,57,576, Rs. 64,867, Rs. 38,145, Rs. 23,317 and Rs. 4,440 respectively were due chiefly to the falling off in traffic.

PALANPUR-DEESA RAILWAY—(*Metre Gauge*).

The working results of the year's transactions, as compared with those of 1895, are shown in the following table:—

	1895.	1896.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	38,182	*51,629	+13,447
Working expenses	15,337	22,457	+7,120
Net earnings	22,845	29,172	+6,327
Percentage of working expenses to earnings ...	40·17	43·50	+3·33
	T. miles.	T. miles.	T. miles.
Train mileage	12,574	12,865	+291
	Rs.	Rs.	Rs.
Receipts per train mile	3·04	4·01	+0·97
Expenses do.	1·22	1·75	+0·53
Net receipts do.	1·82	2·26	+0·44
	Miles.	Miles.	Miles.
Open miles	17·28	17·28	...
	Rs.	Rs.	Rs.
Receipts per open mile	2,210	2,988	+778
Expenses do.	888	1,300	+412
Net receipts do.	1,322	1,688	+366
Percentage of net earnings on total capital outlay ...	5·71	6·98	+1·27

*Includes Rs. 11,602 for terminal charges relating to previous years.

Traffic and Working.

The mileage open throughout the year and on 31st December 1896 was 17·28, the same as in 1895.

The gross earnings and working expenses for the years 1895 and 1896 are compared in the following table:—

	1895.	1896.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	21,907	22,499	+592
Goods	16,134	28,957	+12,823
Electric Telegraph...	115	165	+50
Sundries	26	8	—18
Total ...	38,182	51,629	+13,447

Working Expenses.	1895.	1896.	Difference.
	Rs.	Rs.	Rs.
Maintenance of way, works and stations	2,652	4,334	+1,682
Locomotive expenses	6,505	8,786	+2,281
Carriage and wagon expenses	1,555	2,282	+727
Traffic expenses	2,471	3,752	+1,281
General charges	1,899	2,915	+1,016
Special and miscellaneous expenditure	255	388	+133
Total ...	15,337	22,457	+7,120
Net Earnings ...	22,845	29,172	+6,327

The following statement shows the coaching earnings derived from the several classes of passengers and the number carried :—

	1895.		1896.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First Class	600	610	554	568	-46	-42
Second Class	1,535	679	1,782	767	+247	+88
Third Class	107,889	18,216	113,789	19,373	+5,900	+1,157
Total ...	110,024	19,505	116,125	20,708	+6,101	+1,203
Other receipts ...	...	2,402	...	1,791	...	-611
Total Coaching ...	...	21,907	...	22,499	...	+592

The improvement is entirely in third class traffic, both first and second class having fallen off.

The following table shows the goods traffic of 1896 compared with that of 1895 under the heads of classification :—

	1895.		1896.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Merchandise, general	17,608	15,447	13,603	16,743	-4,005	+1,296
Military stores	112	209	127	218	+15	+9
Railway material for construction ...	551	129	240	53	-311	-76
Coal for the public	...	...	...	...	...	...
Do. for construction	...	...	...	...	...	...
Do. for revenue	18	5	...	...	-18	-5
Revenue stores	88	25	139	32	+51	+7
Total, Goods ...	18,377	15,815	14,109	17,046	-4,268	+1,231
	No.		No.		No.	
Live-stock	768	121	364	114	-404	-7
Rents, &c.	...	198	...	195	...	-3
Terminal charges relating to previous years	...	...	...	11,602	...	+11,602
Total ...	...	16,134	...	28,957	...	12,823

The quantities of the principal commodities carried during 1895 and 1896, and the earnings therefrom, will be found in the following table :—

	1895.		1896.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Grain and pulse	6,263	4,565	3,864	3,153	-2,399	-1,412
Oil-seeds	3,917	2,261	1,594	1.610	-2 323	-651
Provisions...	1,044	1,074	1,282	1,180	+238	+106
Sugar	2,229	2,268	2,132	2,234	-97	-34
All other articles of merchandise ...	4,267	5,488	4,858	8,784	+591	+3,296
Total ...	17,720	15,656	13,730	16,961	-3,990	+1,305

Under general merchandise the chief fluctuations were decreases in grain and pulse and oil-seeds of 2,399 tons Rs. 1,412, and 2,323 tons Rs. 651 respectively ; and an increase of 591 tons Rs. 3,296 in all other articles.

The working expenses on this line are charged in each half-year at the same percentage on gross earnings as prevails on the metre gauge portion of the Rajputána-Málwa Railway system.

Oodeypore-Chitor Railway—(*Metre Gauge*).

The line was opened for traffic on the 1st August 1895.

The working results of the transactions of 1896 as compared with those of the five months of 1895 are shown in the following table:—

		5 months of 1895.	1896.
Gross earnings	Rs.	54,702	1,35,220
Working expenses	„	35,924	81,469
Net earnings	„	18,778	53,751
Percentage of working expenses to earnings	„	65·67	60·25
Train mileage	T. Miles	20,880	47,324
Receipts per train mile	Rs.	2·62	2·86
Expenses do.	„	1·72	1·72
Net receipts do.	„	·90	1·14
Open mileage (mean)	Miles.	25·282	60·354
Receipts per open mile	Rs.	2,164	2,240
Expenses do.	„	1,421	1,350
Net receipts do.	„	743	890
Percentage of net earnings on total Capital outlay.	„	*	*

*Capital outlay not known.

Traffic and Working.

The total mileage open at the end of 1896 was 60·394; the mean mileage worked during the year was 60·354.

The following table shows the gross earnings and working expenses :—

Earnings.	Rs.	Working Expenses.	Rs.
Coaching	96,713	Maintenance of way, works and stations.	30,414
Goods	37,518	Locomotive expenses ...	23,244
Electric Telegraph	959	Carriage and wagon expenses ...	6,130
Sundries	30	Traffic expenses	10,181
Total ...	1,35,220	General charges	7,869
Working expenses	81,469	Special and miscellaneous ...	3,631
Net Earnings ...	53,751	Total ...	81,469

The coaching earnings from the several classes of passengers are shown below :—

	No.	Rs.
First Class	510	1,830
Second Class	1,714	3,238
Third Class	199,124	84,761
Total ...	201,348	89,829
Other receipts	...	6,884
Total, Coaching ...	...	96,713

The following table details the goods traffic under the heads of classification :—

	Tons.	Rs.
Merchandise, general	12,077	33,607
Military stores	10	72
Railway materials for construction.	155	100
Coal	...	...
Revenue stores	11,566	2,645
Total, Goods ...	23,808	36,424
Rents, &c.	...	1,094
Total ...	...	37,518

The principal commodities carried were : cotton, raw, 1,191 tons Rs. 4,352; cotton, manufactured, 674 tons Rs. 2,967 ; grain and pulse, 3,422 tons Rs. 5,687; provisions, 674 tons Rs. 1,823 ; salt, 1,162 tons Rs. 2,417 ; sugar, 1,076 tons Rs. 2,605 ; and tobacco 639 tons Rs. 1,928.

The working expenses of the line, except maintenance, which is charged on actual expenditure with a percentage for supervision, are charged at the percentage on gross earnings prevailing on the Rajputana-Malwa Railway system. An additional charge of 5 per cent. on gross earnings was made for hire of rolling stock up to 30th June 1896.

Nagda-Ujjain Railway—(*Standard Gauge*).

The line was opened for traffic on the 15th July 1896.

The following are the results of the $5\frac{1}{2}$ months' working :—

Gross earnings	Rs.	40,701
Working expenses	„	22,939
Net earnings	„	17,762
Percentage of working expenses to earnings	„	56·36
Train mileage	Train miles.	33,377
Receipts per train mile	Rs.	1·22
Expenses do.	„	0·69
Net receipts do.	„	0·53
Open mileage (mean)	Miles.	16·15
Receipts per open mile	Rs.	2,520
Expenses do.	„	1,420
Net receipts do.	„	1,100
Percentage of net earnings on total capital outlay	„	0·86

Traffic and Working.

The total mileage open at the end of 1896 was 34·67; the mean mileage worked during the year was 16·15.

The following table shows the gross earnings and working expenses :—

Earnings.	Rs.	Working Expenses.	Rs.
Coaching	12,554	Maintenance of way, works and stations.	7,978
Goods	27,904	Locomotive expenses ...	7,705
Electric Telegraph	183	Carriage and wagon expenses ...	1,856
Sundries	60	Traffic expenses	3,065
Total ...	40,701	General charges	1,792
Working expenses ...	22,939	Special and miscellaneous expenditure.	543
Net Earnings ...	17,762	Total ...	22,939

The coaching earnings from the several classes of passengers are shown below :—

	No.	Rs.
First Class	50	126
Second Class	164	205
Intermediate Class	143	66
Third Class	41,275	11,725
Total, ...	41,632	12,122
Other receipts		432
Total Coaching ...		12,554

The following table details the goods traffic under the heads of classification :—

	Tons.	Rs.
Merchandise, general	13,560	27,680
Railway material for construction ...	141	41
Coal	50	46
Revenue stores	...	...
Total, Goods ...	13,751	27,767
Rents, &c.	...	137
Total ...		27,904

The principal commodities carried were : cotton, manufactured, 554 tons Rs. 1,739 ; grain and pulse, 6,893 tons Rs. 14,535 ; and salt, 3,544 tons Rs. 6,122.

The working expenses of the line are charged at the percentage on gross earnings prevailing on the B. B. & C. I. Railway.

SOUTHERN MAHRATTA RAILWAY SYSTEM—(*Metre Gauge*).

The result of the year's transactions as compared with 1895 is shown in the subjoined table :—

	1895.	1896.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	88,38,028	91,62,980	+3,24,952
Working expenses (including contribution to Provident Fund)	52,97,126	51,94,203	—1,02,923
Net earnings	35,40,902	39,68,777	4,27,875
Percentage of expenses on gross earnings.	59·94	56·68	—3·26
	Train miles.	Train miles.	Train miles.
Train mileage	3,347,992	3,712,158	364,166

	1895.	1896.	Difference.
	Rs.	Rs.	Rs.
Receipts per train mile	2·64	2·46	—0·18
Expenses do.	1·58	1·39	—0·19
Net receipts do.	1·06	1·06	.....
	Miles.	Miles.	Miles.
Open mileage	1,556·20	1,556·20	.....
	Rs.	Rs.	Rs.
Receipts per open mile	5,679	5,888	+209
Expenses do.	3,404	3,337	—67
Net receipts do.	2,275	2,550	+275
Percentage of net earnings on total capital outlay including suspense... ...	2·91	3·24	+0·33

The following table gives the details of earnings and working expenses for 1896 compared with 1895 :—

	1895.	1896.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	36,39,471	36,00,019	—39,452
Goods	49,99,717	53,83,823	+3,84,106
Electric Telegraph	26,717	31,922	+5,205
Sundries	1,72,123	1,47,216	—24,907
Total ...	88,38,028	91,62,980	+3,24,952
Working Expenses.			
Maintenance of way, works, &c. ...	13,07,854	11,73,582	—1,34,272
Locomotive expenses	17,95,624	17,88,491	—7,133
Carriage and wagon expenses ...	4,23,230	4,04,082	—19,148
Traffic expenses	8,63,555	9,06,091	+42,536
General charges...	8,13,063	8,16,993	+3,930
Special and miscellaneous expenditure ...	59,868	67,004	+7,136
Total ...	52,63,194	51,56,243	—1,06,951
Contribution to Provident Fund ...	33,932	37,960	+4,028
Total working expenses ...	52,97,126	51,94,203	—1,02,923
Net earnings ...	35,40,902	39,68,777	+4,27,875

The mean mileage worked during the year was the same as in 1895, *viz.* 1,556·20.

The gross earnings and working expenses of the year amounted respectively to Rs. 91,62,980 and Rs. 51,94,203 as against Rs. 88,38,028 and Rs. 52,97,126 in 1895, resulting in an increase in net earnings of Rs. 4,27,875.

The traffic has been steadily improving since 1893 as will be observed from the following figures of gross earnings :—

	Rs.
1893	78,20,038
1894	79,87,447
1895	88,38,028
1896	91,62,980

Earnings.

The following table compares the coaching traffic during 1896 with that of 1895 :—

	1895.		1896.		Difference.	
	No.	Earnings.	No.	Earnings.	No.	Earnings.
		Rs.		Rs.		Rs.
First Class ...	18,667	1,16,482	18,022	1,04,364	—645	—12,118
Second Class ...	60,761	1,56,742	56,937	1,44,001	—3,824	—12,741
Third Class ...	7,256,002	29,62,783	7,396,506	29,90,546	+140,504	+27,763
Total ...	7,335,430	32,36,007	7,471,465	32,38,911	+136,035	+2,904
Other Receipts ...	...	4,03,464	...	3,61,108	...	—42,356
Grand Total ...	7,335,430	36,39,471	7,471,465	36,00,019	+136,035	—39,452

The total coaching traffic decreased by Rs. 39,452, but there was an increase in the number of passengers and the earnings: the former amounted to 136,035 and the latter to Rs. 2,904.

The improvement in numbers is due to an increase in the short-distance passenger traffic and that in amount is due to the troop-specials run from Belgaum.

The following table shows the fluctuations in goods traffic as compared with the traffic for 1895 :—

	1895.		1896.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General merchandise ...	747,074	44,39,347	841,276	49,69,471	+94,202	+5,30,127
Military stores	1,234	18,532	1,088	13,715	—146	—4,817
Railway materials for construction	17,536	21,441	19,273	18,102	+1,737	—3,339
Coal for public... ...	33,935	1,78,327	4,913	21,925	—29,022	—1,56,402
Coal for construction ...	...	...	...	...	...	.....
Coal for Revenue ...	37,798	1,94,012	34,611	2,03,378	—3,187	+9,366
Revenue stores ...	95,769	1,18,156	102,980	1,22,090	+7,181	+3,934
	No.		No.		No.	
Live stock	5,605	9,283	9,401	8,683	+3,796	—600
Rents, Miscellaneous, &c.	...	20,619	...	26,459	...	+5,840
Total ...	933,346	49,99,717	1,004,111	53,83,823	+70,765	+3,84,106

The total goods traffic increased by Rs. 3,84,106. The increase is in a great measure attributable to the heavy exportation of food-grains to the famine districts.

The fluctuations in the more important commodities carried during 1895 and 1896 are shown in the following statement:—

	1895.		1896.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Coal and Coke	33,935	1,78,326	4,913	21,925	—29,022	—1,56,401
Cotton, raw	74,492	4,19,927	64,864	4,03,330	—9,628	—16,597
Do., manufactured... ..	19,854	2,62,898	17,909	2,27,263	—1,945	—35,635
Drugs and Chemicals	2,069	21,930	2,174	21,401	+105	—529
Dyes and Tans	19,840	1,20,628	24,793	138,716	+4,953	+18,088
Grain and Pulse...	181,842	9,64,172	277,663	15,30,604	+95,821	+5,66,432
Hides and Skins	8,108	72,152	8,260	67,139	+152	—5,013
Horns	347	4,053	358	3,990	+11	—33
Jute	9,574	59,708	10,643	70,563	+1,069	+10,855
Lac	38	259	37	228	—1	—31
Leather, manufactured ...	481	4,076	501	4,318	+20	+242
Liquors	9,688	63,849	8,971	55,553	—717	—8,296
Metals	21,878	2,05,167	17,651	1,63,467	—4,227	—41,700
Oils	17,918	1,00,453	23,068	1,56,913	+5,150	+56,460
Oil-seeds...	70,143	3,34,547	64,754	3,55,523	—5,389	+20,976
Opium	4	155	7	146	+3	—9
Paper and Pasteboard	584	8,129	544	7,521	—40	—608
Provisions	57,256	4,02,358	54,918	3,76,894	—2,338	—25,464
Railway Plant, &c.	480	4,662	861	4,063	+381	—599
Salt	45,790	2,90,611	44,404	3,12,224	—1,386	+21,613
Saltpetre, &c.	484	3,204	482	3,688	—2	+484
Silk, raw...	292	4,714	174	3,587	—118	—1,127
Silk, Piece-goods	21	405	.....	11	—21	—394
Spices	26,596	2,01,572	28,758	2,10,704	+2,162	+9,142
Stone and Lime...	21,696	53,069	23,766	54,181	+2,070	+1,112
Sugar	43,613	2,55,277	53,462	2,94,322	+9,849	+39,045
Tea	50	980	32	682	—18	—298
Timber	50,428	1,60,223	52,458	1,63,390	+2,030	+3,167
Tobacco	9,135	58,701	9,371	56,501	+236	—2,200
Wool, raw	256	3,315	245	3,935	—11	+620
Do., manufactured	815	9,721	864	11,550	+49	+1,829
Total ...	727,707	42,69,231	796,905	47,24,332	+67,198	+4,55,101

While the traffic in coal and coke, metals, cotton manufactured and provisions shows decreases of Rs. 1,56,401, Rs. 41,700, Rs. 35,635, and Rs. 25,464 respectively, that in grain and pulse, oils and sugar has increased by Rs. 5,66,432, Rs. 56,460, and Rs. 39,045 respectively.

The increase in grains and sugar is due to heavy bookings to foreign lines, while that under oils is due to heavy bookings from Bombay.

The decrease under coal is due to the cessation of bookings from Bezwáda, and that under metal is due to heavy bookings from Bombay during 1895 on account of Bangalore Water Works. The other decreases are due to heavy traffic in the previous year diverted from the G. I. P. Railway owing to floods.

The receipts from telegraph traffic increased by Rs. 5,205 and sundry traffic decreased by Rs. 24,907. This decrease is due chiefly to the following adjustments effected during 1895 :—

Rent of Castle Rock.

Buildings for half-years ended December 1893 and June 1894.

Commission charges on stores purchased in England, and interest charges on sidings and shed at Castle Rock for Customs Department.

Working Expenses.

The principal variations in the working expenses were decreases under Maintenance of Way and Works, Locomotive expenses, and Carriage and Wagon expenses of Rs. 1,34,272, Rs. 7,133 and Rs. 19,148 respectively, and increases of Rs. 42,536, Rs. 3,930, and Rs. 7,136 under Traffic expenses, General charges, and Special and Miscellaneous expenses.

The decrease under Maintenance of Way and Works, *viz.* Rs. 1,34,272, is due chiefly to the special renewals of sleepers being less expensive than those in the previous year. That under Locomotive expenses, *viz.* Rs. 7,133, is due to substantial reductions in the cost of repairing locomotive stock in the workshops. The decrease under Carriage and Wagon expenses, *viz.* Rs. 19,148, is accounted for by a large credit for value of surplus materials returned from the carriage shops to stores and fewer vehicles having been fitted with Jones' Patent buffers.

Under Traffic expenses the increase, *viz.* Rs. 42,536, is mainly attributable to the share of the joint station expenses at Bangalore City and Bezwada having

been considerably heavier, to the employment of additional hands for working traffic diverted *viâ* Poona, and increases to existing staff. That under General Charges, *viz.* Rs. 3,930, is ascribeable to increases to the staff and to the appointment of extra clerks, police constables and chaukidárs. The increase under Special and Miscellaneous expenses, *viz.* Rs. 7,136, is due to the increased payments for mileage and demurrage of foreign stock and to the expense incurred in connection with law suits.

The contribution to Provident Fund increased by Rs. 4,028, as the net earnings of 1896 were better than those of 1895.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

(Includes the Jetalsar-Rajkot Railway.)

The revenue expenditure for the year 1896 on an open mileage at the close of the year of 379·69 miles was 50·71 per cent. of the gross earnings, yielding a net revenue of Rs. 10,73,513.

The gross traffic earnings for the year amounted to Rs. 21,77,995 and the expenditure to Rs. 11,04,481, leaving net earnings of Rs. 10,73,513; this sum being Rs. 1,74,847 more than the net earnings in 1895.

The gross earnings are made up as under :—

	Rs.
Coaching	11,32,792
Goods	9,92,244
Telegraph	18,811
Sundries	34,148
Total ...	21,77,995

The coaching earnings show an increase of Rs. 31,836 or 2·80 per cent.; and the goods revenue, an increase of Rs. 9,506 or 0·97 per cent. Telegraph shows an increase of Rs. 2,186 and sundries a decrease of Rs. 1,092.

Revenue expenditure amounted to Rs. 11,04,481 or 50·71 per cent. of the gross earnings against 57·92 per cent. in 1895.

The percentage on total earnings of the several heads of revenue expenditure, as compared with 1895, are given in the following table :—

	1895.	1896.
Maintenance	19·58	12·08
Locomotive expenses	14·51	15·30
Carriage and wagon expenses	2·67	2·58
Traffic expenses	9·86	9·44
General charges	9·49	9·41
Miscellaneous charges	1·81	1·90
	57·92	50·71

The net revenue (exclusive of Jetalsar-Rajkot Railway) Rs. 9,89,274 gives a percentage of dividend of 5·63 per cent. on the total capital outlay to the end of 1896, Rs. 1,75,63,395. The shares of the different States in the net revenue, and the percentages on their capital outlay are as follows :—

	Net revenue.	Percentages.
	Rs.	Rs.
Bhavnagar share	5,70,606	8·06
Junagad share	1,21,196	3·12
Gondal-Porbandar share	2,98,431	4·80

The capital outlay to end of year, net earnings of the year and percentage of net earnings to capital outlay on the Jatalsar-Rajkot Railway are Rs. 15,29,265, Rs. 84,239 and 5·51 respectively.

Departmental Expenditure.

Maintenance.—The expenses under this head in 1896 were Rs. 2,63,200 against Rs. 4,18,193, showing a decrease of Rs. 1,54,993.

Locomotive.—The Locomotive expenses amounted to Rs. 3,33,359 against Rs. 3,09,956, showing an increase of Rs. 23,403, and giving an average cost per train-mile of annas 8·96 against 8·25, and per 1,000 gross ton-miles of Rs. 3·70 against Rs. 3·20.

The consumption of coal during the year amounted to 6,858·91 tons against 6,360·96 tons, and the average cost per ton comes to Rs. 21·03 against Rs. 21·81.

The consumption and cost per train-mile was 25·82 lbs. against 23·70 lbs. and annas 3·88 against annas 3·69, respectively.

The coal premium for the year was Rs. 490 against Rs. 2,791, and the amount accounted for during the year was Rs. 357 against Rs. 3,012.

Carriage and Wagon Expenses.—The carriage and wagon expenses, including the Jetalsar-Rajkot Railway, amounted to Rs. 55,780 against Rs. 56,941. The vehicle-miles run by home vehicles were 10,908,911 against 12,780,966. The average cost per 1,000 vechicle-miles run worked out to Rs. 5·11 against Rs. 4·46.

Traffic Expenses.—The total expenses amounted to Rs. 2,05,518 against Rs. 2,10,476. The cost per train-mile and percentage on gross receipts are annas 5·53 and Rs. 9·43, respectively, against annas 5·60 and Rs. 9·85 last year.

General Charges and Special and Miscellaneous Expenditure.—The percentage of the above on the gross earnings of the year compare as follows with the figures for 1895 :—

	1895. Annas.	1896. Annas.
General Charges	9·49	8·46
Special and Miscellaneous Expenditure ...	1·81	1·35

The expenditure reviewed in the foregoing paragraphs is summarized and compared with similar figures in 1895, in the following table :—

	1895.			1896.		
	Expenditure.	Percentage on Gross Receipts.	Cost per Train-mile.	Expenditure.	Percentage on Gross Receipts.	Cost per Train-mile.
	Rs.	Rs.	Annas.	Rs.	Rs.	Annas.
Maintenance	4,18,193	19·58	11·13	2,63,200	12·08	7·08
Locomotive Expenses	3,09,956	14·51	8·25	3,33,359	15·30	8·96
Carriage-Wagon Expenses	56,941	2·67	1·41	55,779	2·58	1·50
Traffic Expenses	2,10,475	9·86	5·60	2,05,518	9·44	5·53
General Charges	2,02,562	9·49	5·39	2,05,025	9·41	5·51
Steam Boat Service	...	...	...	...	...	...
Special and Miscellaneous Expenditure.	38,765	1·81	1·03	41,600	1·90	1·12
Total ...	12,36,892	57·92	32·81	11,04,481	50·71	29·70

Traffic Working.—Coaching.

The gross earnings amounted to Rs. 11,32,792 against Rs. 11,00,956 in 1895. An increase of Rs. 31,836 or 2·89 per cent.

The unit mileage of passenger traffic compares as follows with previous years :—

Class.	Unit Mileage.						
	1890.	1891.	1892.	1893.	1894.	1895.	1896.
1st Class	229,195	195,276	210,216	319,793	335,462	316,950	312,662
2nd Class	1,141,577	1,259,941	1,224,940	1,549,810	1,875,956	2,002,026	2,191,387
3rd Class	51,263,770	50,659,189	49,935,749	62,616,636	64,989,626	67,224,161	68,532,906
Total of all Classes ...	52,634,542	52,114,406	51,370,905	64,486,239	67,201,044	69,543,137	71,036,955

The total number of passengers carried was 2,081,890 against 1,964,550 in 1895, an increase of 117,340 or 5·97 per cent.

There was a slight decrease in number and receipt of first class passengers. There was increase in number and receipt of second and third class passengers, due to increased booking at almost all stations on the lines.

The average distance over which a passenger was carried was 34·12 against 35·40.

The number of trains run in 1896 compares as follows with 1895 :—

	1895.	1896.	Increase.	Decrease.
Mails	847	732	...	115
Mix	4,107	4,128	21	...
Passenger, Special	25	46	21	...

The decrease of 115 mail trains was due to discontinuance of mail trains between Jetalsar and Rajkot Junctions and between Dhola Junction and Junagad.

Increase of 21 mixed trains was due to the following increased number of trains :—12 trains run on the extra day of leap year.

31 Two local trains run between Bhavnagar Terminus and Jetalsar Junction in January 1895 were counted as three mixed trains in 1896, and 278 extra local mixed trains run between Jetalsar Junction and Dhoraji from 1st April to 30th June and 15th November to 31st December 1896.

This number of 321 trains was reduced by 300 mixed trains, *i. e.*, in 1895 local trains between Bhavnagar Terminus and Junagad were counted as six trains, whereas in 1896 they were numbered and counted as four trains which showed an increase of 21 mixed trains during the year.

Increase of 21 special passenger trains was principally due to special trains run for His Excellency the Commander-in-Chief in India and for their Highnesses the Thakor Sahebs of Bhavnagar and Palitana.

The following is the comparison of certain figures connected with coaching working :

		1890.	1891.	1892.	1893.	1894.	1895.	1896.
Average Earnings per Train-mile	Rs.	2·65	3·02	2·99	3 51	3·37	3·53	3·57
Average No. of Units in a Train—								
1st Class	No.	0·73	0·72	0 77	1·10	1·06	1·02	0·99
2nd Class	„	3·65	4·67	4 51	5·35	5·94	6·42	6·91
3rd Class	„	163·75	187·53	183·75	215·97	205·62	215·60	216·19
Total Passenger Units ...		168·13	192·92	189·03	222·42	212·62	223·04	224·09

	1890.	1891.	1892.	1893.	1894.	1895.	1896.
Other Coaching Traffic ...Tons.	·77	·67	·78	·89	·85	·84	·92
Average No. of Vehicles in a Coaching Train—							
1st Class ... ... No.	1·33	1·35	1 40	1·44	1·40	1·34	1·27
2nd Class ... ... „	1·42	1·61	1 61	1·54	1·57	1·62	1·66
3rd Class ... ... „	11·39	11·98	11·12	11·46	11·44	11·33	10·78
Others ... ... „	·49	·61	·66	·77	·76	·72	0·63
Brakes ... ... „	2·65	2·79	2·81	2·59	2·63	2·63	2·60
Total ... ... „	17·28	18 34	17·60	17 80	17·80	17·64	16·94
Average Cost of hauling a Coaching Train ... Rs.	1·46	1·88	1·99	1·76	1·75	1·83	1·71
Passenger Train-mileage per Mean Mile open ... Nos.	939	809	814	869	841	831	845
Gross. Passenger Earnings per Mean Mile Open ... Rs.	2,487	2,442	2,432	3,055	2,836	2,934	3,019

Goods Traffic.

The receipts amounted to Rs. 9,92,244 or 258,811 tons (excluding railway material) against Rs. 9,82,738 or tons 244,154 in the previous year, showing an increase in receipts of Rs. 9,506 or 0·97 per cent. and in weight 14,657 tons or 6 per cent. The principal increases occur in the following staples :—

Cole and Coke.—Rs. 7,393, tons 2,468, due to larger quantities of coal carried for the Morvi Railway.

Cotton, Raw.—Rs. 35,347, tons 7,307, due to a larger crop as compared with the previous year.

Grain and Pulse.—Rs. 49,619, tons 13,296, due to a greater import owing to favourable rates in foreign parts, and poor local production.

Oils.—Rs. 2,791, tons 683, due to larger imports of kerosine-oil *via* the sea at Bhavnagar and Veraval Bandars.

Stone and Lime.—Rs. 10,813, tons 19,809, due to increase of stone traffic from Ranawao and Junagad Quarries.

Sugar.—Rs. 8,189, tons 1,580, due to larger imports from Bombay *via* the sea and from Rajputana-Málwa Railway and railways beyond to stations on this line, owing to better market rates.

Decreases occurred in the following staples:—

Oil-seeds.—Rs. 41,625, tons 9,146, due to less export owing to smaller production of til-seeds and less imports of castor and other seeds, owing to unfavourable rates in foreign parts.

Provisions.—Rs. 11,267, tons 2,286, due to bad season.

Railway Plant and Rolling Stock.—Rs. 8,528, tons 3,123, due to less demand for construction material carried in the previous year for the Oojet Bridge.

Timber.—Rs. 32,358, tons 6,137, due to less export from Bhavnagar.

The following table shows the comparison of certain figures connected with goods working —

	1890.	1891.	1892.	1893.	1894.	1895.	1896.
Average Weight of a Goods Train—							
Freight ... ... Tons	62·88	62·50	60·81	58·31	62·45	58·70	55·29
Dead Weight ... „	116·06	114·02	114·24	119·04	118·12	119·02	104·87
Total ...	178·94	176·52	175·05	177·35	180·57	177·72	160·16

	1890.	1891.	1892.	1893.	1894.	1895.	1896.
Average Load of a Goods Vehicle (including loaded and empty) ...Tons.	2·45	2·48	2·45	2·27	2·45	2·39	2·83
Average Load of a Loaded Goods Vehicle .... „	3·76	3·58	3·48	3·24	3·43	3·34	3·92
Average Receipts per Goods Train-mile .. Rs.	2·84	3·23	3·27	3·37	3·42	3·40	3·57
Average Cost of Hauling a Goods Train-mile ... „	1·92	2·36	2·52	2·07	2·11	2·12	1·83
Average Receipts per Ton-mile ... ... Pies.	8·68	9·93	10·34	11·11	10·50	11·11	12·39
Average Cost of Hauling per Ton-mile ... ... „	5·87	7·26	7·97	6·82	6·48	6·95	6·35
Goods Train-milege per Mean Mile epen ... Nos.	745	580	663	852	685	762	7 32
Gross Goods Earnings per Mean Mile open ... Rs.	2,117	1,876	2,169	2,872	2,338	2,588	2,613

Through booking between Bombay (*via* Bhavnagar Bandar) and stations on the Bhavnagar-Gondal-Junagad-Porbandar Railway, including Jetalsar-Rájkot and Morvi Railways, continued under agreement with Messrs. Shepherd and Co., the Railway merely handing and taking over cargo on shore at the Bhavnagar Bandar.

On the System as a whole.

Bhavnagar-Gondal-Junagad.-Porbandar Railway.—The year 1896 was a record year and with a net profit of 5·63 per cent. on Capital cost eclipsed the previous best year in the history of the line, *viz.* 1893, in which year the net profits were 5·16 per cent.

The Junagad Section has earned a dividend of 3·12 per cent., the previous best year being 1892, when the Section earned 1·62 per cent., and good results may be expected in the future, though, as pointed out in the report for last year, its high construction charges always handicap this section.

The Bhavnagar and Gondal-Porbandar Sections both show very satisfactory results for the year.

The traffic over the whole line is steadily improving year by year, and the following table shows the advance in gross and net earnings since 1892, and also from 1895, the figures given for comparison in last year's report :—

	Gross Earnings.			Net Earnings.		
	1892.	1895.	1896.	1892.	1895.	1896.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Bhavnagar... ...	8,33,814	9,97,894	10,00,770	3,20,599	5,50,577	5,70,607
Gondal-Porbandar...	5,13,377	6,64,909	6,69,021	59,018	2,67,121	2,98,480
Junagad	2,29,423	2,88,164	3,08,273	58,705	4,573	1,21,196

It will be seen that the gross earnings of the Railway (Bhavnagar-Gondal-Junagad- Porbandar) have increased by Rs. 4,02,700 from 1892 and Rs. 28,657 from 1895 or 25 per cent., and 1·47 per cent respectively, while the net earnings have gone up by Rs. 5,51,398 above 1892, and Rs. 1,68,055 above 1895, an increase of 125 per cent. and 20 per cent., respectively.

The figures speak for themselves and show that traffic on the Bhavnagar-Gondal-Junagad-Porbandar Railway proper has continued to advance, and now represents a safe 5 per cent. return in fairly good average years. As in the foregoing statistics the profits realized in the year under report have been compared with the year 1892, it may be mentioned that, with the exception of the Por-

bandar Section, the line has been re-sleepered almost throughout and thoroughly ballasted with proper material in place of the old and worn-out moorum, during the period under review, and a very heavy handicap has been placed on the Junagad Section by the reconstruction of the Oojet Bridge since 1892.

Jetalsar-Rajkot Line.—This line has earned Rs. 1,97,117 gross and Rs. 84,239 net representing a profit of 5·51 per cent. on its capital, the dividend from the opening of the line having steadily gone up—in 1894 4·07 per cent., in 1895 5·15 per cent., and in the year under report 5·51 per cent. This is very satisfactory, but the line is expected to earn much more when goods traffic is diverted round *via* Rajkot, as will be the case when the Morvi Railway is converted to the metre gauge.

Morvi Railway—(2′ 6″ *Gauge*).

The result of the year's transactions as compared with that for 1895, is shown in the subjoined table :—

	1895.	1896.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	3,69,972	3,86,883	+16,911
Working expenses	1,69,845	2,05,262	+35,417
Net earnings	2,00,127	1,81,621	−18,506
Percentage of expenses on gross earnings ...	45·90	53·05	+7·15
	T. Miles.	T. miles.	T. miles.
Train mileage	155,987	165,995	+10,008
	Rs.	Rs.	Rs.
Receipts per train mile	2·37	2·33	−0·04
Expenses do.	1·09	1·24	+0·15
Net receipts do.	1·28	1·09	−0·19
Open milage	94·36	94·36	.....
Receipts per openmile	3,920	4,100	+180
Expenses do.	1,799	2,176	+377
Net receipts do.	2,121	1,924	−197
Percentage of net earnings on Total Capital Outlay to the end of the year	8·34	7·62	−0·72

The following table gives the details of earnings and working expenses for 1896 compared with 1895 :—

	1895.	1896.	Difference.
	Rs.	Rs.	Rs.
Earnings—			
Coaching	2,36,919	2,53,048	+16,129
Goods	1,25,077	1,25,502	+425
Electric Telegraph	5,812	5,761	— 51
Sundries	2,164	2,571	+407
Total ...	3,69,972	3,86,882	+16,910
	Rs.	Rs.	Rs.
Working Expenses—			
Maintenance of Way, Works and Stations ...	38,509	40,136	+1,627
Locomotive expenses	54,889	74,381	+19,492
Carriage and wagon expenses	6,979	9,726	+2,747
Traffic expenses	38,889	42,870	+3,981
General charges	30,050	37,489	+7,439
Special and miscellaneous expenditure ...	529	660	+131
Total, Working Expenses ...	1,69,845	2,05,262	35,417

The mean mileage worked during the year was the same as in the previous year, *viz.* 94·36.

The gross earnings increased from Rs. 3,69,972 in 1895 to Rs. 3,86,883 or by Rs. 16,911, and the working expenses were more by Rs. 35,417 the net earnings for the year showing a decrease of Rs. 18,506 having gone down from Rs. 2,00,127 in 1895 to Rs. 1,81,621 during the year under report.

Of the increase in gross earnings, Rs. 15,878 were derived from passenger traffic, while the goods traffic in which there was no appreciable difference showed a slight improvement of Rs. 425 on the figures for the previous year.

The marked improvement in passenger earnings is ascribed to a general development of passenger traffic, and to the public appreciating the route *viâ* Rajkot which is a junction for cross-traffic with the Jetalsar-Rajkot Branch of the Bhavnagar-Gondal-Junagad-Porbandar Railway. The increase in goods earnings was in traffic in grain and pulse, stone and lime, and timber, &c. There was a large decrease in cotton, raw, which almost counterbalanced the increases noticed above.

The decrease in cotton, raw, was due to less export of the commodity from Morvi.

The principal increases in working expenses were Rs. 19,492 under "Locomotive expenses;" Rs. 2,747 under "Carriage and wagon expenses;" Rs. 3,980 under "Traffic expenses," and Rs. 7,439 under "General charges."

The increase under "Locomotive expenses" was chiefly due to abnormal expenditure on repairs and renewals of Locomotives, (two of the five Locomotives which passed through the workshop having undergone thorough repairs and renewals at a heavy cost) and to more train miles run during the year.

The increase under "Carriage and wagon expenses" was due to larger repairs and renewals of carriages and wagons, as also to credit obtained for a moiety of the Locomotive and Carriage Superintendent's pay charged to the Darbár in the corresponding year.

Larger supply of tarpaulins, repairs and supply of furniture to stations and increments to staff account for the increase in the Traffic expenses. Regarding the general charges, the decrease in the corresponding year occurred in consequence of a credit adjustment effected in that year for cost of stationery, books and forms and to increments given to the staff during the year.

Chapter VIII—Rates and Fares.

(*For the calendar year 1896.*)

G. I. P. Railway System—(*Standard Gauge*).

Coaching Fares—Third class mileage fare by ordinary passenger and mixed trains was reduced from 2½ pies to 2 pies from 1st January 1896.

Goods Rates.—1. From 1st February 1896 Government Schedule rates were adopted on the G. I. P. Railway for Railway material.

2. From 1st March 1896, to equalize the rates with those *viâ* Marmugão special through rates were quoted between Bombay and Kirkee and all Southern Mahratta Railway Stations *viâ* Poona, and *viâ* Hotgi.

3. Special reduced rates were quoted in the following cases :—

Grain and seeds from Nagpur and Jubbulpore to Bombay, from 1st February 1896.

Grain and seeds from *viâ* Cawnpore for Oudh and Rohilkund Railway Stations *viâ* Itarsi and from stations on the Nizam's Guaranteed State Railway *viâ* Wadi to Bombay from 1st February 1896.

Grain and seeds from *viâ* Nagpur to Bombay from 1st March 1896.

Ghee in tins and barrels from Jhansi and Agra Fort to Bombay *viâ* Itarsí from 1st April 1896.

Bones from Agra and *viâ* to Coorla *viâ* Itarsi from 1st May 1896.

Piece-goods between Bombay and *viâ* Wadi, *viâ* Jubbulporeand *viâ* Raichur from 1st June 1896.

Government Telegraph stores from Bombay to Cawnpore and *viâ* and Agra and *viâ* Itarsi from 1st June 1896.

Grain and seeds from Raichur to *viâ* Itarsi for traffic to stations on the I. M. Railway from 1st August 1896.

Revised goods class rates between Bombay and stations on the R. M. Railway Khandwa to Chambal *viâ* Khandwa from 1st October 1896.

The fourth and fifth class rates have been reduced in local and through booking from 1st October 1896.

B. B. & C. I. Railway System—(*Standard Gauge*).

Rajputana-Malwa Railway System—(*Metre Gauge*).

Coaching Rates and Fares.—No. alteration af any importance was made in the ordinary fares or coaching rates during the year 1896.

Goods Rates.—The following important changes in Goods rates were made during the year 1896:—

(*a*) *Coal, Coke and Patent Fuel.*—With effect from the 1st January 1896, the revised schedules of charges and rebates as regards coal, laid down in Schedules A and B to Government of India, Public Works Department, Circular No. 8, dated 4th May 1895, were adopted on local distances on the Company's System.

(*b*) *Revised Maxima and Minima Goods Rates on the R.-M. Railway.*—With effect from the 1st January 1896, the revised maxima and minima rates and fares, prescribed by the Government of India in 1895 were adopted on the R.-M. Railway, and rates were re-adjusted, where necessary, to conform to the Government orders.

(*c*) Goods rates between Bombay and certain stations on the Malwa Section were re-adjusted with effect from the 1st January 1896, consequent upon the reduction in rates made by the G. I. P. Railway between Bombay and *viâ* Khandwa for traffic to and from stations Chambal to Ajanti, including Ujjain on the Malwa Section of this Company's System. The old rates were, however, reverted to with effect from the 1st August 1896, in consequence of the agreement which has been come to between the two Railways for a division of traffic between Bombay and stations Ajnod to Mhow on the Malwa Section.

(*d*) *Foreign Railway Materials and Stores.*—With effect from the 1st October 1896, the scale of charges for the carriage of Foreign Railway materials and stores, whether consigned for construction, working or maintenance, laid down in Schedule C to the Government of India Circular No. 8-R., dated 4th May 1895, was adopted on the Company's System.

(*e*) *Routing of Traffic on the opening of the Ujjain-Bhopal Railway.*—Consequent upon the opening of the U.-B. Railway, an arrangement was come to, with effect from the 1st September 1896, with the I. M. Railway in respect to the routing of traffic to and from stations on the I. M. and B. B. & C. I. Railways and Railways beyond reached *viâ* Ujjain.

(*f*) *Reduced Rates for Grains.*—In consequence of the expected scarcity in Rajputana, the North-Western Provinces and the Punjab, the same rates were quoted, with effect from the 29th September 1896, for edible grain booked downwards from Bombay and *viâ* Dadar Junction to stations north of Marwar Railway Junction as those charged for grain (other than wheat) carried in the up direction in accordance with the policy pursued on other Railways.

Southern Mahratta Railway System—(*Metre Gauge*).

Coaching Fares.—No changes were made in the coaching rates on this line during the past year.

Goods Rates.—From 1st March 1896, special rates were quoted for Chinaware, Glassware, Medicines, Oilmanstores, Preserves, Provisions, Stationery and Sweets from Bombay to Dharwar and Hubli to compete with the sea route *viâ* Vingurla.

From 1st March 1896, special through rates between Great Indian Peninsula Railway stations, Bombay to Kirkee, and all Southern Mahratta Railway stations *viâ* Poona and *viâ* Hotgi have been quoted to equalize the rates *viâ* Poona and *viâ* Hotgi to Bombay with those *viâ* Marmugão.

From 1st March 1896, by mutual agreement the Great Indian Peninsula Madras and Southern Mahratta Railways booked all traffic by the shortest route at the lowest rate in force by any route.

Bhavnagar-Gondal-Junagad-Porbandar Railway—(*Metre Gauge*).

(Includes the Jetalsar-Rajkot Railway).

Coaching.—From 1st October 1896, a concession to students has been introduced to allow them to travel second class at third class fares when proceeding in parties of not less than four, from or to their schools for examination or other educational purposes.

Goods Rates.—From 1st April 1896, dangerous goods booked through as "Deferred consignments" from stations on the B. B. and C. I. Railway and beyond to stations on the Bhavnagar-Gondal-Junagad-Porbandar Railway and charged on actual weight, are charged from the 1st April, subject to a minimum charge as for 20 maunds.

From 1st June 1896 in local booking, and from 1st July 1896 in through booking with foreign Railways, animals of small size for breeding, agricultural, sporting or domestic purposes, not otherwise provided for and when conveyed in batches, are charged at four annas per cattle-truck per mile at Railway's risk instead of at owner's risk.

From 27th July 1896 in local booking, and from 1st September 1896 in through booking, Rajkot-Pura Station has been opened for goods traffic. Live-stock not booked.

From 15th September 1896 in local booking, and from 1st October 1896 in through booking with foreign Railways, and from 15th October 1896 in through booking with Bombay Harbour *viâ* Bhavnagar Bandar, rates and definitions for cotton have been altered as under :—

Rates and Definitions altered from	Rates and Definitions altered to
Cotton, full-pressed, *i.e.*, pressed to not less than 25 lbs. per cubic foot at 6 pies per ton-mile.	Cotton, full-pressed, *i. e.*, pressed to more than 24 lbs. per cubic foot. — 10·888 pies per ton-mile.
Cotton bales, measuring up to 35 cubic feet treated as three-fourth pressed, and charged at 11 pies per ton-mile.	Cotton, three-quarter pressed, *i.e.*, pressed to more than 11 and up to 24 lbs. per cubic foot. — 13 pies per ton-mile.
Cotton bales, measuring over 35 and up to 50 cubic feet (but in local booking up to 53 cubit feet) treated as half-pressed, and charged at 14 pies per ton-mile.	Cotton, half-pressed, *i.e.*, pressed from 6 to 11 lbs. per cubic foot. — 16·332 pies per ton-mile.
Cotton bales, measuring over 50 cubic feet (but in local booking over 53 cubic feet) treated as docras, and charged at 21 pies-per ton-mile.	Cotton, pressed to less than 6 lbs. per cubic foot to be considered unpressed or in docras. — 21·776 pies per ton-mile.

MORVI RAILWAY—(2′ 6″ *Gauge*).

Coaching.—A Committee assembled at the Morvi Railway Station to report on the carrying capacity of the rolling stock in use for Military purposes. The proceedings of the Committee were approved by the Government *vide* Government Resolution, Public Works Department, Railway, No. 2790 of the 12th November 1896. Carrying capacity for troops has accordingly been notified to come in force in local and through booking from 1st December 1896 and 1st January 1897 respectively.

Goods.—Payment for the half carrying capacity of wagons specially requisitioned by Military authorities irrespective of what they are loaded with, or whether attached to troop or ordinary trains has been accepted and adopted with effect from 1st March 1896 in accordance with Government Resolution No. 400 of 14th February 1896.

HIS HIGHNESS THE GAEKWAR'S DABHOI RAILWAY.

No alteration was made in the coaching or goods rates and fares on this line during the year.

Chapter IX.—Miscellaneous.

Persons employed.

(*For the official year ending 31st March 1897*).

During the year, the officers present for duty were :—

Government Supervision and Control.

Secretary to the Government of Bombay, Railway Department, and Consulting Engineer for Railways—Lieut.-Colonel H. O. Selby, R.E.

Under Secretary to Government, Railway Department, and Deputy Consulting Engineer for Railways—Mr. R. C. Dyson, (on furlough from 4th April 1896 to 29th January 1897).

Mr. J. Willcocks, acting from 4th April 1896 to 29th January 1897.

Deputy Consulting Engineers for Railways—

Mr. P. P. Dease, till 1st August 1896.

Mr. J. Willcocks.

Mr. R. C. Dyson, (on furlough from 4th April 1896 to 29th January 1897).

Mr. J. Adam, (on furlough from 18th April 1896).

Lieut. W. D. Waghorn, R.E. (on leave from 24th August to 31st October 1896).

Captain O. M. R. Thackwell, R.E., has been attached to the office of the Consulting Engineer for Railways from 21st December 1896.

Examiners of Guaranteed Railway Accounts, Bombay—

Major C. R. Hoskyn, R.E.

Mr. F. G. Heaven, till 6th June 1896.

Mr. C. E. Ross, from 5th November 1896 (on leave from 15th February 1897).

Deputy Examiners of Guaranteed Railway Accounts, Bombay—

Mr. G. W. Sweet, till 2nd March 1897 (had rejoined from furlough on the 5th December 1896).

Mr. C. Muirhead, (on leave from 4th January to 2nd February 1897.

Examiner of Railway Accounts, Dhárwár—

Mr. J. Shaw.

Heads of Departments of each Railway.

G. I. P. Railway.

Bombay.

Agent—Mr. G. A. Barnett, C.I.E. (on leave from the 4th May to 19th June 1896, during which period Mr. H. Wenden, Chief Engineer, acted as Agent).

Auditor—Mr. S. Gore-Browne (on leave for one month from the 15th April 1896, during which period Mr. C. Newborn, 1st Assistant Auditor, acted as Auditor).

Chief Engineer—Mr. H. Wenden (acted as Agent from 4th May to 19th June 1896, during which period Mr. T. W. Pearson, District Engineer, acted as Chief Engineer) on furlough from the 20th June 1896.

Mr. T. W. Pearson, District Engineer, acting from the 20th June 1896.

General Traffic Manager—Mr. H. Conder (on furlough till 3rd January 1897).

Mr. E. W. Keily acting till 3rd January 1897.

Locomotive Superintendent—Mr. R. L. Trevithick.

General Store-keeper—Mr. A. King (on furlough from 11th April 1896).

Mr. J. C. P. Maynard, Assistant to General Storekeeper, acting from 11th April 1896.

Telegraph Superintendent—Mr. G. R. Webb (on furlough till 28th March 1897).

Mr. J. E. Neale, Assistant Telegraph Superintendent, acting till 28th March 1897.

Superintending Surgeon—Dr. W. Kay.

Superintendent of Police (Poona)—Messrs. Henderson, Dubois, Goldsmid and Hume—*vide* particulars under "Police."

B. B. and C. I. Railway (including Rajputana-Malwa Railway).

Bombay.

Agent—Major H. D. Olivier, R. E. (on privilege leave from 7th April 1896 to 17th May 1896.

Mr. E. B. Carroll, acting during Major Olivier's absence.

Chief Auditor and Accountant.—Mr. J. O'Connell (on furlough from 7th September 1896; retired on 31st December 1896).

Mr. R. A. English, acting during Mr. O'Connell's furlough. Appointed Chief Auditor and Accountant with effect from 1st January 1897.

General Traffic Manager—Mr. I. O'Callaghan (on leave from 27th April to 31st July 1896.

Mr. C. A. R. Crommelin, acting during Mr. O'Callaghan's absence.

Chief Engineer—Mr. H. I. B. Hargrave.

Traffic Manager—Mr. C. A. R. Crommelin.

Locomotive and Carriage Superintendent—Mr. E. B. Carroll (acted as Agent from 7th April to 17th May 1896. On furlough from 5th June 1896 to 1st January 1897.

Mr. E. S. Luard acted during Mr. Carroll's absence.

Mr. Carroll retired at the end of his furlough and Mr. E. S. Luard has been appointed Locomotive Superintendent in his stead with effect from 2nd January 1897.

Chief Storekeeper—Mr. S. A. Duigan (on furlough from 14th November 1896).

Mr. R. Woollcombe, acting.

Telegraph Superintendent (Surat)—Mr. J. Franklin (on privilege leave till 12th April 1896).

Chief Medical Officer—Dr. A. H. Deane (on furlough from 16th March 1897).

Surgeon-Captain Childe carrying on the duties of Dr. Deane with effect from 16th March 1897.

Assistant Superintendent of Police—Mr. R. M. Phillips.

Ajmere.

Engineer-in-Chief—Mr. W. Harvey (on leave from 22nd August to 31st October 1896).

Traffic Superintendent—Mr. J. Conder (on leave from 5th April to 2nd July 1896).

Mr. N. G. Priestly acted during Mr. Conder's absence.

Locomotive Superintendent—Mr. F. N. Gutersloh.

Carriage and Wagon Superintendent—Mr. J. J. Adler (on leave from 5th August to 14th October 1896).

Deputy Storekeeper—Mr. G. R. Spencer.

Medical Officer (Bandikui)—Dr. W. Crofts).

Assistant Inspector-General of Police, B. B. and C. I. and R-M. Railways—Mr. R. E. Acklom (on leave from 20th April to 17th July 1896).

Mr. J. R. Tregear, in charge during Mr. Acklom's absence.

SOUTHERN MAHRATTA RAILWAY.

Dhârwâr.

Agent—Major J. Burn-Murdoch, R.E.

Chief Engineer—Mr. Peter Scott.

Auditor—Mr. J. Partridge (on leave from 8th April to 18th May 1896 and from 23rd November to 20th December 1896).

Mr. W. B. Wright acted during Mr. Partridge's absence on leave.

Mr. Partridge reverted to Government service on the 20th December 1896.

Mr. Wright acted as Auditor till March 1896 when Captain C. A. R. Brown, R.E., was appointed Auditor of the Railway.

Traffic Manager—Mr. A. Muirhead.

Locomotive Superintendent (Hubli)—Mr. C. P. Whitcombe (on furlough till 9th June 1896).

Mr. G. W., Lindsley acted during Mr. Whitcombe's absence.

Mr. Whitcombe's connection with the Company ceased on the 21st August 1896, from which date Mr. Lindsley has been acting as Locomotive Superintendent.

Storekeeper (Hubli)—Mr. H. Weir (on leave from 11th May to 10th June 1896).

The Storekeeper's duties were looked after by the Audit Department during Mr. Weir's absence.

Mr. Weir reverted to the appointment of Sub-Storekeeper, Bangalore, with effect from the 11th June 1896.

Mr. Rozario, sub. *pro-tem* Storekeeper from 11th June to 3rd July 1896.

Mr. H. Carpenter, appointed Storekeeper with effect from 4th July 1896.

Medical Officer (Hubli)—Dr. E. S. Chenai.

Superintendent of Police—Mr. Duggan till the 25th February 1896.

F. H. Warden from the 26th February 1896.

BHAVNAGAR-GONDAL-JUNAGAD PORBANDAR RAILWAY.

Ghadechi.

Manager and Engineer-in-Chief—Mr. W. H. White (on leave from 6th August 1896 to 17th February 1897).

Mr. P. P. Dease acted during Mr White's absence.

Examiner of Accounts—Mr. W. C. Hickie.

Traffic Superintendent—Mr. C. Carroll.

Locomotive and Carriage Superintendent—Mr. D. Wedderburn.

Storekeeper—Mr. J. N. Vacha.

Medical Officer—Dr. N. F. Bunshaw.

MORVI RAILWAY.

Morvi.

Manager and Executive Engineer—Mr. W. H. White (on leave from 6th August 1896 to 17th February 1897).

Mr. C. P. White acted during Mr. W. H. White's absence.

Resident Engineer and Traffic Superintendent—Mr. C. P. White.

Locomotive and Carriage Superintendent—Mr. M. B. Burke.

Auditor and Accountant—Mr. Hormusji Dinshaw.

BARSI LIGHT RAILWAY.

Barsi.

Agent and Resident Engineer—Mr. A. N. Alexander.

Schools.

The following tables give information in connection with the attendance at the various schools, and the receipts and expenses for the calendar year 1896 :—

GREAT INDIAN PENINSULA RAILWAY.

Railway Schools.

Name and Location of School.	Attendance.				Annual Contributions.				Annual Expenditure	Remarks.
	Children.		Apprentices and workmen.							
	Number on the rolls.	Average daily attendance.	Number on the rolls.	Average daily attendance.	Government Grant.	Railway Grant.	Average School Fees.	Total.		
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Average monthly fees— Rs. a. p.
G. I. P. Railway School, Parel	13	11	...	...	Nil.	576 5 9	*144 4 0	720 9 9	576 5 9	*12 0 4
G. I. P. Railway School Igatpuri	60	48	...	...	1,153 0 0	3,313 5 10	*557 12 9	5,024 2 7	3,948 5 10	*55 12 6
G. I. P. Railway School, Bhusaval	52	39	...	...	410 0 0	3,008 9 10	*492 7 3	3,911 1 1	3,350 9 10	*44 12 3
G. I. P. Railway School, Khandwa	15	12	...	...	600 0 0	†1,254 9 9	*351 1 9	2,205 11 6	1,354 9 9	*29 4 2
G. I. P. Railway School, Lonavli	72	61	...	...	874 0 0	2,657 14 1	*701 7 9	4,243 5 10	3,183 14 1	*70 2 4
G. I. P. Railway School, Sholapur	58	40	...	...	332 0 0	1,541 11 4	*423 5 6	2,297 0 10	1,761 11 4	*42 5 4
G. I. P. Railway School, Shahabad	17	16	...	...	235 15 0	1,004 9 2	*185 6 5	1,425 14 7	1,148 9 2	*16 13 8

† Rs. 236 of this sum is the Rajputana-Malwa Railway proportion of expenses from 1st January to 30th April 1896.

Local and District Schools.

Name and Location of School.	Attendance.				Annual Contributions.			Remarks.
	Children.		Apprentices and Workmen.					
	Number on the rolls.	Average daily attendance.	Number on the rolls.	Average daily attendance.	Railway Grant.	Average School Fees.	Total.	
1	2	3	4	5	6	7	8	9
					Rs.			
Church School, Jubbulpore	85	...	...	...	600	...	...	
Church School, Harda	68	...	...	...	600	...	...	
Bishop's School, Nagpur	6	...	...	...	250	...	...	
St. Francis de Sale's Roman Catholic School, Nágpur	12	...	2	...	224	...	...	
St. Joseph's Convent Branch Schools, Nágpur	34	...	3	...	220½	...	...	

B. B. & C. I. Railway.

Railway Schools.

Name and Location of School.	Attendance.				Annual Contribution.				Annual Expenditure.	Remarks.
	Children.		Apprentices.		Government grant.	Railway grant.	School fees.	Total.		
	Number on the roll.	Average daily attendance.	Number on the roll.	Average daily attendance.						
					Rs.	Rs.	Rs.	Rs.	Rs. a. p.	
Parel Railway School .	61·45	49·42	...	...	879	2,376	1,498	4,753	5,092 13 1	
Bulsar Railway School.	7·45	7·50	...	...	...	...	95	95	300 0 0	The excess expenditure was met from the school funds.
Ahmedabad Railway School.	51·91	52·35	...	...	...	1,560	726	2,286	3,139 0 0	Do. do.

Local and District Schools.

Name and location of Schools.	Attendance.				Annual Contribution.		
	Children.		Apprentices and workmen.				
	Number on the roll.	Average daily attendance.	Number on the roll.	Average daily attendance.	Railway grants including Boarding.	School fees including Boarding.	Total.
	No.				Rs.	Rs.	Rs.
Convent Boarding School, Parel ...	2	2·42	..	...	67	66	133
Bombay Education Society's School, Byculla	8	7·44	...	...	1,040	1,185	2,225
St. Peters Boys' High School, Mazgaon.	3	1·68	...	...	290	290	580
Taylor High School, Poona... ...	2	1·51	...	...	249	285	534
Boys' High School, Oak Openings, Nainital	1	0·75	...	...	90	171	261
Wellesly Girls' School. Nainital ...	1	0·75	...	...	68	157	225
Carried forward ...					1,804	2,154	3,958

Name and location of Schools.	Attendance. Children. Number on the roll.	Attendance. Children. Average daily attendance.	Attendance. Apprentices and workmen. Number on the roll.	Attendance. Apprentices and workmen. Average daily attendance.	Annual Contribution. Railway grants including Boarding.	Annual Contribution. School fees including Boarding.	Annual Contribution. Total.
	No.				Rs.	Rs.	Rs.
Brought over ...					1,804	2,154	3,958
Convent Girls' School, Lower Mahim ...	3	3·01	...	...	60	60	120
Boys' Diocesan High School, Nainital ...	1	0·44	...	...	68	70	138
Colaba High School, Colaba ...	3	1·42	...	...	40	61	101
St. Xavier's High School, Esplanade ...	2	2·50	...	...	57	57	114
St. Joseph's Convent School, Bandra ...	3	1·51	...	...	150	150	300
St. Mary's College, Mazagon ...	2	1·75	...	...	231	231	462
Cathedral Boys' High School, Fort ...	1	1·59	...	...	52	51	103
Convent School, Fort	1	1·00	...	...	42	42	84
Bishop's High School, Poona ...	1	1·00	...	...	162	162	324
St. Mary's High School, Poona ...	2	1·84	...	...	278	278	556
Victoria Jubilee, Technical Institute, Parel	1	0·50	...	...	9	9	18
Antonio DeSilva's Anglo-Portuguese School, Dadar	1	1·00	...	...	9	9	18
John Connon High School, Esplanade ...	5	3·92	...	...	72	73	145
Girls' High School, Girgaon ...	3	3·58	...	...	68	68	136
St. Stanislaus Institution, Bandra ...	1	0·50	...	...	13	12	25
Lawrence Mayo Asylum, Murree ...	1	0·50	...	...	54	54	108
Indo-British Institution, Bori Bandar ...	2	1·01	...	...	60	60	120
St. Joseph's Convent School, Poona ...	1	0·50	...	...	54	54	108
Anglo-Indian School, Baroda ...	9	6·03	...	...	252	...	252
					3,535	3,655	7,190

Rajputana-Malwa Railway.

Railway Schools.

Name and Location of School.	Attendance. Children. Number on the Roll.	Attendance. Children. Average daily Attendance.	Attendance. Apprentices. Number on the Roll.	Attendance. Apprentices. Average daily Attendance.	Annual Contributions. Government Grant.	Annual Contributions. Railway Grant.	Annual Contributions. School fees.	Annual Contributions. Total.	Annual Expenditure.	Remarks.
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Railway School, Mount Abu ...	31	29	...	...	...	11,450 0 0	4,645 0 0	16,095 0 0	16,095 0 0	
Do. Abu Road ...	9·72	9·79	...	...	...	481 7 9	214 4 0	695 11 9	695 11 9	
Do. Ajmere	43·0	29·87	...	...	1,200 0 0	750 0 0	787 0 0	2,737 0 0	2,820 0 0	The excess was met from school funds.
Railway Night School, Ajmere ...	...	...	36·5	36·59	...	861 0 0	.....	861 0 0	847 9 9	
Railway School Neemuch ...	20·4	15·27	...	...	330 0 0	853 10 6	403 3 6	1,586 14 0	1,633 10 0	Excess met from school funds.
Joint Railway School, Khándwa.	...	...	...	...	...	.....	.....	.....	.....	No children of B. B. and C. I. Railway employés attend the school.
Railway School, Bandikui ...	28·33	29·4	...	...	1,200 0 0	.....	615 6 9	1,815 6 9	1,842 12 3	Excess met from the school funds.
Do. Sirsa	27·0	19·0	..	...	535 10 0	336 1 7	632 12 11	1,504 8 6	1,504 8 6	
Do. Kasganj ...	9·75	8·02	...	...	...	272 0 0	176 6 6	448 6 6	430 7 0	
Do. Mhow	37·75	37·72	...	...	...	327 8 0	126 12 6	454 4 6	497 10 3	The excess was met from the school funds.

Local and District Schools.

Name and Location of School.	Attendance.				Annual Contribution.			Remarks.
	Children.		Apprentices and Workmen.		Railway Grant.	School fees.	Total.	
	Number on the Roll.	Average daily Attendance.	Number on the Roll.	Average daily Attendance.				
					Rs. a. p.	Rs. a. p.	Rs. a. p.	
Anglo-Vernacular School, Abu Road ...	155·24	137·07	...	...	729 12 3	835 9 4	1,565 5 7	
Bengálee School, Ajmere	14·18	9·71	...	...	86 2 0	86 2 0	172 4 0	
Deccani do. do.	11·58	11·56	...	...	98 2 0	98 2 0	196 4 0	
Pársi do. do.	4·17	4·19	...	...	420 0 0	25 0 0	445 0 0	
Dyanand Ashram Anglo-Vedic School, Ajmere.	215·083	216·961	...	...	600 0 0	956 15 6	1,556 15 6	
Anglo-Vernacular School, Bandikui ...	100	82·6	...	..	566 4 0	226 9 0	792 13 0	
Edulji Pestonji School, Mhow	82	70·52	...	...	657 0 0	657 0 0	1,314 0 0	
Nuns, Boarding and Day School, Mhow.	45·4	45·495	...	...	300 0 0	579 0 0	879 0 0	

Southern Mahratta Railway System.

Railway Schools.

Name and Location of School.	Attendance.				Annual Contribution.				Annual Expenditure.	Remarks.
	Children.		Apprentices and Workmen.							
	Number on the Roll.	Average daily Attendance.	Number on the Roll.	Average daily Attendance.	Government Grant.	Railway Grant.	Average School-fees.	Total.		
Southern Mahratta Railway.					Rs.	Rs.	Rs.	Rs.	Rs.	
Hubli Railway School	24	15	...	...	A 454	600	B 226	1,280	1,129	A. Includes grant fo 2 years, *viz*, for 1895-96 and 1896-97, received during the year. B. This includes Rs. 90-11-0 interest on money in Postal Savings Bank, &c. (*c*) Sale of books.
Dhárwár Railway School ...	35	30	...	...	431	660	275	1,366 *c* 34	1,302	
Guntakal Railway School ...	26	23	...	...	...	520	131	651	540	
Miraj Railway School	17	12	...	...	...	240	72	312	263	
Mysore State Railway.										
Arsikeri Railway School... ...	17	13	...	...	...	360	108	468	432	
Bangalore Railway School ...	31	15	...	...	...	520	110	630	548	

Bhavnagar-Gondal-Junagad-Porbandar Railway, including Jetalsar Rajkot Railway.

Railway Schools.

Name and Location of School.	Attendance.				Annual Contribution.				Annual Expenditure.	Outstanding to School.
	Children.		Apprentice and Workmen.		Government Grant.	Railway Grant.	Average School fees &c.	Total.		
	Number on the Rolls.	Average daily Attendance.	Number on the Rolls.	Average daily Attendance.						
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a.
B.-G.-J.-P. and J.-R. English School at Jetalsar	17	16·57	...	...	279 0 0	744 2 2	530 13 10	1,554 0 0	1,869 9 10	315 9 10

Volunteers.

For the official year ending 31st March 1897.

The following statement shows the enrolled strength of the number of efficients in each Railway Volunteer Corps on the 31st March 1897 :—

Corps.	Enrolled Strength.	Efficient.				Non-efficients.	Sergeant Instructors, 1st and 2nd Class.	Drill Instructors.	Head-quarters.
		Officers.	Non-Commissioned Officers.	Volunteers.	Total.				
G. I. P. Railway Volunteer Rifle Corps.	990	30	165	792	987	3	10	2	Bombay.
B. B. & C. I. Railway Volunteer Rifle Corps 1st Battalion.	*623	23	76	513	612	†11	5	1	Do.
Do. do. F. Coy. (B.-G.-J.-P. Railway).	85	3	9	72	84	1	One 1st class.	...	Jetalsar.
Do. do. (Morvi Railway).	2	...	...	2	2	...	One 1st class.	...	Do.
Do. Second Battalion, (R.-M. Railway).	929	35	115	771	921	8	10	...	Ajmere.
Southern Mahratta Railway Volunteer Rifle Crops.	695	17	64	606	687	8	Four 1st class and one 2nd class.	...	Hubli.

* (†) Including 27 Reservists, of whom 3 are non-efficients.

Fuel Consumption.

(For the calendar year ending 31st December 1896.)

G. I. P. Railway System—(*Standard Gauge*).

On the Konkan District (Bombay to Karjat and Bombay to Kasara).	Singareni unscreened, (*a*) English, (*b*) Bengal seaborne, and (*c*) Japanese.
On the Bhore Ghât (Karjat to Lonavla) ...	Singareni unscreened, English, Bengal seaborne, and Japanese.
On the Thull Ghat (Kasara to Igatpuri)...	English and Japanese.
On the South-East Line (Lonavla to Raichur).	(*d*) Singareni unscreened, and Bengal seaborne.
On the Dhond and Manmad Section ...	Singareni unscreened.
On the North-East Line (Igatpuri to Nandgaon).	(*e*) Narbada, Umaria large, Warora, Singareni unscreened, English, Bengal seaborne and Japanese.
On the North-East Line (Nandgaon to Bhusawal).	Narbada, Umaria large, Umaria nut, (*f*) Warora, Bengal-Nagpur Coal Company's English and Bengal seaborne.
On the North-East Line (Bhusawal to Khandwa).	Narbada, (*g*) Umaria large, (*g*) Umaria nut, Warora, Bengal-Nagpur Coal Company's and English.
On the North-East Line (Khandwa to Jubbulpore).	Narbada, Umaria large and Umaria nut.
On the section Bhusawal to Nagpur ...	Narbada, Umaria large, Umaria nut, Warora, and (*h*) Bengal-Nagpur Coal Company's.
On the section Wardha to Warora ...	Warora.
On the Khamgaon Section	Warora and Bengal-Nagpur Coal Company's.
On the Amraoti Section	Do. do.

(*a*) Delivered into boats in Bombay from Rs. 16-8-0 to Rs. 17-2-0 ; (*b*) from Rs. 12-8-0 to Rs. 14-8-0, and (*c*) from Rs. 13-4-0 to Rs. 15-0-0 per ton.

(*d*) Delivered into wagons at Yellandu on N.-G.-S. Railway, at Rs. 4-8-0 per ton.

(*e*) Delivered into wagons at Mohpani at Rs. 6 per ton.

(*f*) Delivered into wagons at pit's mouth at Rs. 4-8-0 per ton.

(*g*) Delivered into wagons at Umaria, large at Rs. 4-0-0 and nut at Rs. 2-2-0 per ton.

(*h*) Delivered into wagons at pit's mouth at Rs. 3-0-0 per ton.

B. B. & C. I. Railway System—(*Standard Gauge*).

(Includes the B. B. & C. I. Railway, H. H. the Gaekwar's Petlad Railway, the Godhra-Rutlam-Nagda Railway and the Nagda-Ujjain Railway.)

The description and quantities of fuel used during the year on this system is shown below :—

English Coals.

	Tons.	cwt.	qr.
Nixon's Navigation	7,289	17	0
Ferndale	21,682	9	2
Powell Duffryn	968	0	0
Welsh	1,008	0	0
Davison's West Hartley	140	0	0
	31,088	6	2

Country Coals.

Singareni	8,700	12	0
Borrea	28,658	4	1
Salanpore	2,713	0	0
Jeherria	817	0	0
Mohpani	54	10	0
Jardine Navigation	1,949	0	0
	42,892	6	1

The coal supplied under all the contracts was of good quality, and th arrangements for delivery were satisfactory.

Rajputana-Malwa Railway System—(*Metre Gauge*).

(Includes the Palanpur-Deesa and H. H. the Gaekwar's Mehsana Railway.)

Kurharbaru, Borrea and Gorungdi coals were used over the whole line Salanpore and Borrea coals between Sabarmati, Mehsana and Mhow; Singarer coal between Khandwa and Rutlam; Jardine Navigation coal at Agra for trial, and firewood and unserviceable sleepers over the whole line for lighting up engines.

Southern Mahratta Railway System—(*Metre Gauge*).

The description of fuel used during the year on the several sections of the Southern Mahratta Railway (including the Mysore and Kolhapur State Railways) is shown below :—

Name of Section.	Between Stations.		Description of Fuel.
Poona Branch ...	Poona ...	Miraj ...	Singareni unscreened coal
	Miraj ...	Londa ...	Firewood.
Kolhapur State Railway ...	Miraj ...	Kolhápur ...	Do.
Main Line	Castle Rock ...	Gadag ...	Do.
Harihar Branch ...	Hubli ...	Harihar ...	Do.
Mysore State Railway ...	Harihar ...	Nanjangad ...	Singareni unscreened coal.
Main Line	Gadag ...	Bezvada ...	
Guntakal-Hindupur ...	Guntakal ...	Mysore Frontier (Hindupur).	
Yeshvantpur-Hindupur ...	Yeshvantpur..	Do. ...	
Bijapur Branch ...	Gadag ...	Hotgi ...	

The fuel supplied under all the contracts has been of good quality, and arrangements for delivery were satisfactory.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY—(*Metre Gauge*).

(Includes the Jetalsar-Rajkot Railway.)

The coal used during the year was chiefly Cardiff (Powell Duffryn).

The coal used during the year was as follows :—

	Tons.	cwt.	qrs.	lbs.	
Coal Cardiff Powell Duffryn ... Coal Standard Merthoye ...	6,085	9	1	4	For engines.
Coal Dutton's Welsh Hartley ...	59	3	0	0	Do.
Coal Australian Wallarah ...	49	13	2	4	Do.
Coal Bengal Jardine Navigation ... Coal Great Eastern do. ...	1,428	18	1	0	Do.
Coal West Hartley	324	2	1	0	For Loco. workshops.

Some five bags of steam coal claimed to be the best obtainable from the Bengal collieries was tried and found to be only fairly satisfactory. The quantity supplied was, however, very small and no decided opinion could be recorded thereon.

The Australian Wallarah coal on trial was found to be similar to the Bengal coal as regards consumption, but is somewhat more smoky.

MORVI RAILWAY—(2' 6" *Gauge*).

The coal used on this line during the year was Cardiff coal and this is found to be the best for the small locomotives of this line.

1,309 tons were used during the year.

H. H. THE GAEKWAR'S DABHOI RAILWAY—(2' 6" *Gauge*).

The fuel used on this line is included in the figures shown for the B. B. & C. I. Railway System.

Railway Police.

For the calendar year ending 31st December 1896.

G. I. P. RAILWAY SYSTEM WITHIN THE BOMBAY PRESIDENCY.

The following officers were in charge of the office of Superintendent, G. I. P. Railway Police :—

Mr. Henderson from 1st January to 23rd July 1896.

Mr. Dubois from 24th July to 23rd October 1896.

Mr. Henderson from 24th October to 12th November 1896.

Mr. Goldsmid from 13th November to 22nd December 1896, and

Mr. Hume from 23rd December to 31st December 1896.

The total number of cases reported during the year was 1,374 against 560 during the previous year.

The increase of 814 is very large and is chiefly due to a circular issued by Mr. Henderson regarding the registration as crimes of cases reported as "missing goods." The circular was issued with the intention to prevent the police refusing to register as crimes, complaints of the loss of property which they could not reasonably expect to recover and which therefore they classified as "missing goods" and would not register as crimes. The circular went too far and was therefore modified under instructions from the Inspector-General of Police. It was however in force from the 1st January until the 15th August, during which time 1,142 cases were reported, of which 615 were reported as "missing goods" cases and 475 cases were actually excluded and 49 eliminated, *i.e.*, transferred to the District Police.

Excluded cases under "all classes" rose from 132 to 621. Compared to the number of cases reported, the percentages in 1895 and 1896 are 22·3 and 43·5 respectively. The reason for the large increase is Mr. Henderson's order about the

registration of missing goods. Only two cases were declared to be maliciously false and proceedings were taken against the complainants but were undisposed of at the end of the year. No cases seem to have been taken up under Section 560 of the Criminal Procedure Code.

Of the total number of 764 cases disposed of within the year, 318 were classed as undetected giving a percentage of 41 as against 45 in the previous year. The improvement, though small, is satisfactory, as the Police had, during the year, to dispose of more than double the number of cases they had to deal with in 1895. Of the 318 cases, no less than 299 come under the heads of House-breaking and Thefts. Cases of real crime rose from 435 in 1895 to 776, of which 361 and 512 were under Indian Penal Code in 1895 and 1896 respectively. The more strict registration of crime resulting on Mr. Henderson's circular is the reason for the increase.

Including 16 pending from the previous year, the number of persons arrested was 624 as against 301 in 1895 which shews that there has been a large increase of real crime. It will be seen from the following comparative statement that these cases were more efficiently dealt with than was the case in 1895:—

Class of Cases.	Persons convicted to persons arrested by the Police *suo motu*.		Persons convicted to those disposed of by trial.	
	1895.	1896.	1895.	1896.
Penal Code	67·34	70·28	72·92	74·82
All classes	71·57	80·95	76·11	83·98

Of the 624 persons, 18 were released without being brought to trial—a percentage of 2·8 as against 4·9 in the previous year, which evinces more discretion on the part of the Police in making arrests.

There was a general increase in serious cases over the number reported in 1895. Murder reported rose from 0 to 1, dacoities from 5 to 7, robberies from 3 to 9, house-breaking with intent to commit theft from 13 to 23 and thefts from 415 to 1,004, but 560 out of these 1,004 were excluded as against 89 in 1895. 22 cases of receiving stolen property were reported in 1896 as against 7 in 1895. Much of the increase of this crime was due to the prevailing scarcity. Of the 6 additional cases of robberies, 3 were due to scarcity and 2 to enmity or revenge; again, of the 23 cases of house-breaking with intent to commit theft, 10 occurred at gate-houses or stations where there are no Police. Thefts from passing trains were numerous, but not as common as they were during the famine of 1876 and 1877.

The total number of thefts and their classification are shown in the following table:—

Classification.	Convicted.		Discharged.		Undetected.		Pending.		Total.	
	1895.	1896.	1895.	1896.	1895.	1896.	1895.	1896.	1895.	1896.
Thefts from goods sheds and stations... ...	80	96	4	7	85	121	40	25	209	249
Thefts from trains while running ...	2	11	...	1	23	65	13	13	38	90
Thefts from persons ...	27	33	4	1	33	56	15	15	79	105
Total ...	109	140	8	9	141	242	68	53	326	444

Thefts from goods sheds and stations show an increase of 40 due to the strict registration of missing goods, reported losses of fittings and cases of removal of iron keys as thefts. The increase of 52 cases in thefts from running

trains is partly due to the prevailing scarcity. Thefts from persons rose from 79 to 105, the latter number including 27 cases in which there was clear evidence that thefts could not have occurred on the line but in which the reports of losses were made at the first station in this Presidency. The rise in thefts from persons may be put down to rigid registration and to the influx of bad characters from other provinces owing to the scarcity.

The value of property reported to have been stolen during the year was Rs. 48,538 against Rs. 17,593 in 1895, but including property pending from previous year, the total value of property that had to be accounted for in 1896 was Rs. 51,912 as compared with Rs. 19,245 in 1895. Of this amount, property of the value of Rs. 15,988 or 30·79 per cent. was recovered as compared with 19·97 per cent. in the previous year. This is decidedly satisfactory: besides, Rs. 23,357 worth of stolen property was recovered for other districts. Property was stolen in 544 cases and recovered in 208 which gives a percentage of 38·23 cases. This compares unfavourably with 1895 when property was recovered in 44·78 per cent. of the cases in which it was lost.

The total number of non-cognizable crimes decreased from 57 in 1895 to 52 in 1896. In three only of these cases were the police employed to make enquiries as against 13 in the previous year. In all 64 persons as against 70 in 1895 were actually brought before Magistrates; of this number 4 were discharged after appearance, 14 were acquitted and 45 convicted. The percentage of convictions decreased from 74 to 70.

The strength of the Force which stood at 606 men in 1895 was augmented in 1896 by the addition of two head Constables and 8 Constables. The total cost was Rs. 1,41,594 as against Rs. 1,34,117 in 1895. The length of line supervised remained unchanged at 772 miles.

B. B. & C. I. and Rajputana-Malwa Railways.

The following officers were in charge of the different offices during the year.

Assistant Inspector-General of Police—

Mr. Acklom from 1st January 1896 to 19th April 1896 and from 18th July 1896 to 31st December 1896.

Mr. Tregear from 20th April 1896 to 17th July 1896.

Assistant Superintendent of Police, Bandikui—

Mr. Tregear from 1st January 1896 to 17th April 1896 and from 21st July 1896 to 31st December 1896.

Rái Bahádur Kishorilal from 18th April 1896 to 20th July 1896.

Assistant Superintendent of Police, Indore—

Rái Bahádur Kishorilal from 1st January 1896 to 14th January 1896 and from 22nd July 1896 to 31st December 1896.

Mr. Dubois from 15th January 1896 to 21st July 1896.

Assistant Superintendent of Police, B. B. & C. I. Railway—

Mr. Phillips from 1st January 1896 to 22nd October 1896 and from 23rd to 31st December 1896.

Mr. Hume from 23rd October 1896 to 22nd December 1896.

The total number of cognizable cases reported under "All classes" during the year were 1,408 as compared with 1,349 in 1895. Under Indian Penal Code the number was 1,223 as against 1,148 in the previous year. The increase is due to more thefts having been committed (987 reported against 916 in the previous year) and no satisfactory reason is assignable for this. Including pending cases from the preceding year, the number of cases for disposal was 1,476 as compared with 1,390. 161 cases were struck off, leaving 1,315 for disposal. Of these 1,315, 48 were pending at the close of the year and of the balance which were disposed of, 581 were classed as undetected and 686 were brought to trial ending in 607 convictions. Under Indian Penal Code alone, the number of

cases for disposal during the year was 1,277 and the number of real cases disposed of 1,087 as compared with 1,181 and 1,030 respectively in 1895. Of the 1,087 real cases disposed of during the year, 569 were undetected and of the 518 which were brought to trial 450 ended in conviction. The percentages of convictions compared with 1895 are as follows :—

	Cases ending in conviction to real cases disposed of.		Cases ending in conviction to real cases decided by trial.	
	1895.	1896.	1895.	1896.
Indian Penal Code	41·84	41·39	85·68	86·87
All classes	48·39	47·90	87·35	88·48

The percentages of convictions generally to cases decided by trial show a small but satisfactory improvement.

The following table shows real serious crime reported in 1896 as compared with 1895 :—

	1895.	1896.
Murders	3	1
Attempt at murder and culpable homicide ...	1	1
Dacoities	4	2
Robberies	8	8
House-breaking with intent to commit thefts ...	67	75

None of the cases call for special remark but it is regrettable that neither of the two dacoities were traced ; they were, however, small affairs committed a gate lodges near Viramgám and Baroda respectively: in the two only Rs. 115 worth of property was stolen. The murder case was detected and the accused convicted.

Including 2 pending cases of the previous year, there were 10 true cases of robbery for disposal. Of this number 6 remained undetected and of the remaining 4 which were decided by trial, only one was convicted, a result which is not creditable.

The Police were equally unsuccessful in dealing with cases of "house-breaking with intent to commit thefts." Of the 76 true cases for disposal, only 8 could be traced and brought to trial with 6 cases ending in conviction.

The case of culpable homicide was undisposed of at the close of the year.

Out of the total number of 1,476 cases for disposal, 161 were excluded, a percentage of 10 as against 8 in the previous year. Ten cases were declared to be "maliciously false" but only one resulted in conviction of the false complainant.

The total number of undetected cases was 581 as against 541 in the preceding year. A large number of these come under the heads of "house-breaking with intent to commit thefts" and "thefts." 48 cases remained pending at the close of 1896, 20 being under investigation by the Police and 28 under disposal of Magistrates.

There were 41 real cases of receiving stolen property. 35 of these resulted in conviction and 2 out of the remaining 6 were pending at the close of the year.

733 persons were arrested under the Indian Penal Code and inclusive of 25 pending from previous year, the cases of 758 had to be disposed of during the year under report. Of these 16 or 2·1 per cent. were released without trial, as compared with 4·08 in 1895. 718 were brought to trial and 560 were convicted.

The following table shews the percentages of convictions in the two years :—

	Persons convicted to persons arrested by the Police *suo motu*.		Persons convicted to those disposed of by trial.	
	1895.	1896.	1895.	1896.
Indian Penal Code	74·22	76·29	77·5	77·99
All classes	76·27	77·90	79·18	79·49

Property valued at Rs. 87,515 is reported as having been stolen during the year. Inclusive of property valued at Rs. 4,859 which remained over at the end of 1895; the total value of the stolen property to be accounted for was Rs. 92,374 as against Rs. 49,118 in the previous year. Recoveries amounted to Rs. 61,402, or a percentage of 66·47, as compared with 43·72 per cent in 1895. The increase in the amount of property stolen is considerable, but the recoveries are correspondingly high. The improvement in recoveries is creditable to the Police.

Sixty-one persons with stolen property valued at Rs. 10,753 belonging to other jurisdictions were arrested by the Railway Police and handed over to their respective jurisdictions.

The following table shows the classification of thefts :—

From Stations, good-sheds and otherwise	526
From Running trains	79
From Passengers	283

Ninety-nine thefts from passengers are reported to have been committed by professional thieves, of which 52 were convicted. 69 persons were arrested in these 52 cases and 58 of them convicted.

Railway property valued at Rs. 9,795 is shewn as stolen and property to the value of Rs. 2,383 as recovered. A series of thefts of heavy goods from running trains by a thieving gang occurred in the vicinity of Baroda and Anand towards the close of the year. Only one case has been detected and in that case only one person was arrested and his prosecution ended in a fiasco. Special measures are now being taken for the detection of the gang.

The number of non-cognizable crime was 235 during the year as against 226 in 1895. 282 persons were brought before Magistrates, of whom 243 were convicted, 15 were acquitted and 24 discharged. The percentage of persons convicted to persons brought to trial was 86, as compared with 85 in the previous year.

The total force of the whole system consisted of 194 officers and 1,024 men as compared with 182 officers and 969 men in 1895. The increase of 12 officers and 55 men is due chiefly to the opening for traffic, during the year, of the Rutlám-Ujjain line. The total length of line supervised during the year was 2,162 miles and the total cost of the force was Rs. 2,32,491.

SOUTHERN MAHRATTA RAILWAY SYSTEM WITHIN THE BOMBAY PRESIDENCY.

Mr. Duggan was in charge until 25th February 1896, when he retired; since that date Mr. Warden has held the office of Superintendent of Police.

There were 247 cases in all of cognizable crimes reported under "all classes" as against 265 in 1895, a decrease of 18 cases. For Penal Code cases the decrease has been 22. As regards true cases, however, there is a decrease of only 9 cases under the two main heads referred to. This decrease is due to ordinary fluctuations of crime, and though small, is satisfactory, considering that part of the railway passes through the heart of a famine district and another portion traverses districts where high prices prevailed during the latter part of the year. Cases pending at the end of the year amounted to 9, the same as last

year: 8 of these were before the Magistrates and 1 under investigation by the Police.

The total number of cases for disposal were 256 or 15 less than in 1895. Of these 87 were excluded, *viz.*, 3 as non-cognizable, 76 as false but not maliciously and 7 as maliciously false. One case was compounded. Fifty-five of the 87 cases were instituted by the Company's employes. In one of the 7 malicious cases, the complainant was prosecuted, convicted and fined: in another case, it is reported that there was sufficient evidence, but the informant died before the police could lay their complaint before the Magistrate. In the five remaining cases, there was not sufficient evidence to justify a prosecution. As regards the more serious crimes, there was only one murder, which was detected and the perpetrator was sentenced to death: none occurred in 1895. No cases of dacoity occurred as against three real cases in the preceding year: no real case of robbery occurred either year. House-breaking increased from 8 reported in 1895 to 25 in 1896; of these 25, 8 were excluded; in 5, convictions were obtained; 9 remained undetected and 3 were pending at the close of the year.

The number of cases of theft reported in 1896 was 120 against 153 in 1895 but the number of real cases was 68 as compared with 91. The following is the classification of the thefts, inclusive of 6 pending from the previous year:—

Thefts from stations and goods-sheds	32
Thefts from trains	11
Other thefts	31

Showing a decrease of 13 and 9 and an increase of 3, respectively compared with 1895.

Of the 32 thefts at stations, 9 were from goods-sheds and of these 6 are reported as having been detected, resulting in 5 convictions. Thefts from trains show a decrease of 9 cases; 5 were detected, 4 were undetected, while 2 were pending at the close of the year. There were 14 cases of receiving stolen property against 10 real cases in 1895. Convictions were obtained in all these cases—a satisfactory result.

107 real cognizable cases under the Penal Code were disposed of during the year; convictions were obtained in 71 the same number as in the preceding year, but the percentage of convictions has increased from 65 to 66. The percentage of undetected cases to those disposed of decreased from 34 to 30. Of the 75 real cognizable cases decided by trial, 71 or 95 per cent. resulted in conviction against 99 per cent. in 1895.

Including 2 persons pending from the previous year, the number of persons arrested in Penal Code cases was 117; of these 3 remained under trial before the Magistrates at the close of the year. Of the remaining 114, 80 or 70 per cent. were convicted against a percentage 78 in 1895. The percentage of persons convicted to those disposed of by trial has also decreased from 79 to 72; there is no satisfactory explanation of this falling off.

The total value of property stolen (inclusive of Rs. 37-9-9 from the previous year) was Rs. 5,169-6-6 against Rs. 4,375-11-4 in 1895: the percentage of property recovered has decreased from 61 to 50 but the cases in which property was stolen and recovered show an improvement of 9 per cent.

Under non-cognizable crime, thirty cases, all under the Railways Act, were reported during the year against 23 in the previous year, of which only 16 were under that Act. Only one case was referred to the Police for enquiry. 39 persons as against 33 were brought before Magistrates, of whom 34 were convicted and 5 acquitted. The percentage of convictions was 87 as against 60 in 1895.

The general results of the year's working as compared with those of 1895 shew a very slight decrease in crime and the percentage of cases convicted to those disposed of shews a slight improvement both under "Penal Code" and "Other Laws." The percentage of undetected cases too has considerably improved. The percentage under persons, however, shows a general falling off. Under property the percentage of value stolen and recovered has fallen off but improved as regards cases.

The jurisdiction of the Superintendent of Police was the same as in 1895, *viz.*, 722 miles with 92 stations.

Four constables were sanctioned during the year for duty with the night trains, bringing the total of the force to 311. The total cost of the entire force during the year was Rs. 67,446 as against Rs. 64,565 in 1895.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY.

(Including the Jetalsar-Rajkot Railway.)

The sanctioned strength of the force during the past year was :—

Subordinate Officers	...	...	... 20
Constables and men	...	...	... 63
			83

and the total cost was Rs. 19,950 or Rs. 52·50 per mean mile.

During the year, there were 86 cases of cognizable crime reported to the Police as compared with 67 and 79 for the two years 1895-96 and 1894-95, respectively. Nine of them were excluded from the register as "no offences" by order of the Magistrates. 39 of the remaining 77 cases were sent up for trial : 28 resulted in conviction and 9 in acquittal or were discharged, and two were pending decision at the end of the year.

The percentage of cases ending in conviction to cases sent up for trial stood at 71, as compared with 63 and 76 in the two preceding years.

The amount of property stolen was valued at Rs. 3,055-6-5 ; property of the value of Rs. 1,994-10-6 was recovered, a percentage of 65·26 per cent.

There were no cases of thuggee or dacoity during the year.

J. WILLCOCKS,
Officiating Consulting Engineer for Railways.

Bombay, the 10*th September* 1897.

APPENDIX A.

Contract between Her Majesty's Secretary of State for India and the Barsi Light Railway Company, Limited, for the construction of the Barsi Light Railway.

THIS INDENTURE, made the first day of August 1895, BETWEEN THE SECRETARY OF STATE IN COUNCIL OF INDIA of the one part, and THE BARSI LIGHT RAILWAY COMPANY, LIMITED, having its registered office at 308, Winchester House, Old Broad Street, London, of the other part.

WHEREAS the Barsi Light Railway Company has been formed for the purpose of constructing, maintaining, and working, *inter alia*, the light railway hereinafter mentioned between Barsi Town and Barsi Road Station on the Great Indian Peninsula Railway, and it is expedient that the said Company should be authorised to construct, maintain, and work the said light railway upon the terms and subject to the conditions hereinafter mentioned, and to do all things necessary in that behalf.

AND WHEREAS it is intended by the Secretary of State, and it has been agreed between the parties hereto, that the Indian Railways Act, 1890, shall apply to the said light railway.

AND WHEREAS part of the line of the said light railway is intended to be constructed on the Barsi-Karduvadi Road (hereinafter referred to as "the municipal road"), the soil of which is vested in the Municipality of Barsi, and the said Municipality has agreed to the construction of the said light railway on the municipal road, and to the entry thereof within municipal boundaries, upon the terms and conditions hereinafter mentioned.

NOW THIS INDENTURE WITNESSETH and it is hereby agreed and declared as follows:—

Interpretation of Terms.

1. The expression "the Secretary of State" means the Secretary of State in Council of India.

The expression "the Company" means "the Barsi Light Railway Company, Limited."

The expression "the Act" means "the Indian Railways Act, 1890."

The expressions "the said light railway" and "the said railway" mean and include the railway mentioned in the fourth section of this Contract.

The expression "the Collector" means the chief officer in charge of the land revenue administration of a district, and includes any officer specially appointed by the Local Government to discharge the functions of a collector under the Act; and the expression "the Government Inspector" means an inspector of railways appointed under the Act.

The expressions "local authority" and "road authority" have the same respective meanings which are assigned to them respectively by the Indian Tramways Act, 1886.

Law applicable to the Railway and Reservation.

2. The said light railway shall be constructed, maintained, and worked subject to the provisions of the Act and of the rules from time to time in force thereunder, and subject also to the provisions of this Contract. But, except as in this Contract expressly provided, no powers or rights shall be deemed to have been hereby conferred upon the Company, or to have been relinquished by the Secretary of State, or by the Government of India acting on behalf of the Secretary of State.

Construction of Railway.

3. The Company shall substantially commence the construction of the said light railway within one year from the date of this Contract, and subject to any extensions of time that the Secretary of State may see fit to grant, shall construct, complete, and equip ready and fit in every respect for opening for public traffic throughout, within two years from that date, the light railway described in the following section with all establishments, permanent way, stations, offices, works, rolling-stock, and conveniences which shall be necessary or proper for the purposes of the said light railway, either as regards the working of the same or the permanence thereof, and in strict accordance in all respects with plans and specifications to be submitted by the Company to the Secretary of State and approved by him, or with such modifications thereof as he may from time to time require or approve of.

4. The said light railway shall be a single line of the 2 feet 6 inches gauge, with necessary passing-places to be laid from the town of Barsi to the Barsi Road Station of the Great Indian Peninsula Railway Company a distence of less than 22 miles on the said "municipal road," and on the road from Barsi to the said station (hereinafter called "the provincial road"), the soil of which is vested in Government, but of which a portion lies within the limits of the said Municipality. The alignment of the said railway shall be as follows, but the distances mentioned in this clause are to be regarded as approximate, and with the approval of the Secretary of State may be subject to slight variation. The junction with the Great Indian Peninsula Railway shall be effected on land on the north side of the Barsi Road Station, now in the possession of the Great Indian Peninsula Railway Company, and a length of about 560

yards of the railway line will run within that Company's land. The alignment of the railway shall leave the Railway Company's land at the north end of the railway triangle and run northwards for about 275 yards, where it will meet the provincial road between road bridges Nos. 2 and 3 at about road mileage O 591 yards. Thence it shall pass along the north side of the road and be situated entirely within the road boundaries up to about road mileage 20 miles 1,646 yards, whence it will diverge to the south, stopping within the limits of the Barsi Municipality. His Highness the Nizam's Territories will be entered on the bridge over the Sena river at about road mileage 8 miles 590 yards, and left at about road mileage 14 miles 968 yards; the boundary of the Barsi Municipality will be crossed at about road mileage 19 miles 270 yards, and the terminal station and sidings will be wholly within municipal boundaries.

5. The Company may use for the construction of the railway, but not for the purpose of any building or erection connected therewith, one side of the provincial road 5½ feet in width, measured from the gutter; or, where the road is in embankment, from the edge of such embankment, and for the purpose of crossing bridges may approach the centre of the road so far as shall in each instance be deemed unavoidable by the Government Engineer in executive charge of the road. PROVIDED that—

(1). There shall nowhere be left a less width of metalled road clear of the inner rail of the railway than 15 feet.

(2). At all level-crossings and wherever the width of metalled road left clear of the inner rail of the railway is less than 18 feet, and the railway is not fenced, either grooved or double rails shall be used, and the metal of the road shall be maintained flush with the level of the top of the rails, and if double rails are used they shall be kept properly secured to each other by distance pieces at regular intervals.

(3). If any addition to the existing width of the metalled surface of the road is rendered necessary by compliance with the terms of this Contract, or if any addition to or alteration of any bridge is, in the opinion of the Government Engineer in executive charge of the road, rendered necessary by the railway, the same shall be carried out by and at the cost of the Company to the satisfaction of the said Engineer; and

(4) At no point on the metalled road shall there be more than one line of rails; any loop-lines, turn-outs, or sidings that may be required must therefore be placed, elsewhere than on the metalled portion of the road.

Conditions as to the User of the Municipal Road.

6. The following are the conditions on which the Municipality of Barsi has agreed to the construction of the said light railway on the municipal road, and to the entry of the said light railway within municipal boundaries, and the Company shall strictly comply with and observe the same; that is to say,

(*a.*) The whole road shall be handed over to the Company.

(*b.*) The line eastwards from the Public Works Department road bridge No. 69 shall be fenced, and all crossings shall be protected with gates and attendants where the main road is cut into by cross-roads, and also at any other point where the Barsi Municipality, with the consent of the Collector, may demand a level-crossing.

(*c.*) The Company shall reconstruct and put into working order so much of the old road as runs alongside of the present road, which is to be made over to the Company, and thereafter the Company shall repair and maintain the present road, and the said Municipality the old road.

(*d.*) The Company shall pay an annual rent charge not exceeding Rs. (50) fifty for the privilege of laying such sidings from the Barsi Station to all or any of the cotton presses at Barsi, as may hereafter be mutually agreed to by the said Municipality and the Company. Outside railway limits these sidings must be fenced throughout and provided with all properly protected crossings.

(*e.*) The said Municipality shall be permitted to establish within the limits of the station yard one or more nákas or posts for the collection of tolls or octroi duties duly sanctioned from time to time by Government, and the Company shall provide and afford to the Municipality all reasonable facilities for the collection of the same; and

(*f.*) All works done within the limits of the said Municipality by the Company shall be executed to the reasonable satisfaction of the Municipality.

PROVIDED ALWAYS, that if any dispute or question shall arise upon any of the provisions contained in this or the proceeding clause, or upon engineering and technical matters, not involving questions relating to the civil administration of the Government of India, either between the Company and the Government Engineer in executive charge of the road, or between the Company and the said municipality, the matter in dispute shall be referred to the Government Consulting Engineer for Railways, whose decision shall be final.

Acquisition and disposal of Land by the Company.

7. The Company may from time to time acquire in British Territory such land (other than the municipal road and the portion of the provincial road which they are authorised by or

under this Contract to use) as may be required for the purposes of the undertaking by agreement made through and with the concurrence of the Collector, and the provisions of the Land Acquisition Act, 1894, shall be made applicable to the acquisition of any such land if the Company shall so desire, and all expenses incurred in connection therewith shall be borne by the Company.

8. For procuring the acquisition by the Company of any land in foreign territory, reasonably required by them for the purposes of the undertaking, the Secretary of State will from time to time use his good offices.

9. The Company may from time to time, with the approval in writing of the Collector, but not otherwise sell or otherwise dispose of any land acquired by them under this section which may no longer be necessary for the purposes of the undertaking.

Construction of the Line, Fencing, Level-crossings, &c.

10.—(1.) The rails of the railway, except where the use of grooved or double rails is required by clause 5, shall weigh not less than 30 lbs. per yard, and be of Vignole's section. All rails shall be laid in a workmanlike and secure manner, and the line shall be fully ballasted.

(2). Each station must be protected by permanent signals of such a character as may be required by the Government Inspector.

11.—(1.) If any train runs on any part of the railway at the higher rate of speed than 12 miles an hour, the line shall, if the Secretary of State shall so require, be fenced throughout its whole length on the provincial road. If the speed limit of trains does not exceed the above rate it shall be sufficient, until further orders, for the Company to protect the line of rails by fencing at all level-crossings, and wherever the railway crosses a bridge which is also used for road traffic, and also at all places where the road embankment is more than 3 feet high, but the Secretary of State reserves to himself the power to require at any time the erection and maintenance by the company of fencing at other places, or throughout the whole length of the line on the said road. The description and extent of fencing to be used shall in every case be such as shall be satisfactory to the Secretary of State.

(2.) The Company shall provide level-crossings wherever the railway crosses district or village roads, and shall maintain gatekeepers at such road bridges used jointly by the cart road and the railway, and at such level-crossings as the Government Inspector may from time to time direct. The Company shall also provide permanent signals at such of the road bridges crossed by the railway as the Government Inspector shall from time to time direct.

12. The works at the junction with the Great Indian Peninsula Railway, which will be entirely upon the land of that Company, shall be constructed by that Company in accordance with plans and specifications to be mutually agreed upon between the Company and the railway Company, and such plans and specifications may subsequently be altered or modified by mutual agreement in like manner. The cost of such works and of any alterations or modifications thereof shall be borne by the Great Indian Peninsula Railway Company, or by the Company, or jointly, as may be from time to time agreed on, with the approval of the Secretary of State.

13. The Company shall construct and maintain to the satisfaction of the Government Inspector all such stations, passing-places, sidings, junctions, and other works in addition to those specified in or indicated by this Contract, and shall also supply and maintain all such establishments in addition to those specified in or indicated by this Contract as the Secretary of State or the Government Inspector may from time to time consider to be expedient, either for the efficient working of the railway or for the convenience and safety of the public and the traffic on the roadway.

Construction of Rolling-stock.

14.—(1.) The maximum width of any locomotive or any vehicle, whether for the conveyance of passengers or goods, used on the railway, shall be 7½ feet, and no such locomotive or vehicle shall project outwards beyond the inside edge of the rail more than 2½ feet on each side, and the maximum height shall be 10 feet at the centre and 9 feet at the sides, and the number of sleepers shall be not less than two thousand per mile.

(2.) The weight per axle of any such locomotive or vehicle shall not, except with the sanction of the Secretary of State, exceed 5 tons on rails weighing 30 lbs. per yard, or 6·25 tons on rails weighing 35 lbs. per yard. The wheel diameter shall not be less than 4½ inches per ton on axle.

15. Every vehicle used on the railway shall be of a pattern approved by the Government Consulting Engineer for Railways, and every carriage for the conveyance of passengers shall be constructed in such a manner as in the opinion of such Consulting Engineer will be proper and sufficient to enable passengers to enter thereinto and to descend therefrom in safety, and shall provide for their accomodation therein in such a manner as the said Consulting Engineer may consider suitable.

16. The rolling-stock shall be fitted throughout with efficient brakes. There shall be at least one brake-van with a person in charge of it to each train, and more shall be attached whenever found necessary and whenever the Government Inspector shall so require.

Privileges and Responsibilities in respect of Roads.

17. The Company shall afford every reasonable facility for carrying out in or on the land occupied by the railway any work connected with any sewer, drain, telegraph line, gas-pipe, water-pipe, or anything whatsoever which the Governor of Bombay in Council, the local authority, the road authority, or any person duly authorised by the Governor of Bombay in Council, or by either of the said authorities in this behalf, may by notice in writing at any time inform the Company of their intention to execute.

18. The Company shall not, without the consent in writing of the Collector or of the Bársi Municipality, as the case may be, cut down or lop any tree growing along or by the side of the road, except that in case of emergency the Company may remove or lop the branches or any portion of a tree which projects or hangs in such a manner as to be a source of danger or impediment to the railway traffic.

19. The Company shall maintain and keep in repair and thoroughly drained to the satisfaction of the Government Engineer in executive charge thereof the entire provincial road, and preserve a smooth metalled surface throughout of a width of not less than 20 feet.

20. Any road metal or material excavated by the Company from the provincial road in the construction or maintenance of the railway may be applied by them in or towards re-instating the said road, or in or towards completing any work thereon required by this Contract; and the Company shall be at liberty, free of charge, to take such metal or material from the quarries belonging to Government from which the metal and material required for the purpose of the said road have heretofore been taken.

21. The Company may stack road metal and other materials for the construction or maintenance of the railway within the limits of the provincial road boundaries, but the same shall be stacked in such a manner as in the opinion of the Government Engineer in executive charge of the road will not impede or endanger the traffic on the said road.

22. The portion of the provincial road which the Company are not authorised by or under this Contract to use for the purpose of the railway shall be left free and unencumbered for ordinary traffic, and no obstruction whatsoever shall be placed thereon or caused thereto without the previous written consent of the Engineer aforesaid.

23. The collection of the tolls from time to time lawfully leviable under Bombay Act No. III of 1875 on the ordinary traffic on the provincial road alongside of the railway shall, on and from the date on which the Company substantially commence the construction of the railway in accordance with clause 3 of this Contract, be placed by the Governor of Bombay in Council, under section 3 of that Act, under the management of the Company, who shall be entitled to appropriate the proceeds thereof. Provided always, that the rates of the said tolls within the limits allowed by law shall from time to time be fixed in his discretion by the Governor of Bombay in Council.

Motive Power.

24. The motive power to be used on the railway shall be locomotive engines worked by steam.

25. The speed of trains on the railway shall not exceed 15 miles an hour, or such other limit as may from time to time be prescribed by the Secretary of State.

Maintenance of Railway and Rolling-stock.

26. The Company shall at all times maintain and keep in good condition and repair, to the satisfaction of the Secretary of State, the permanent-way, and all works, rolling-stock, and appliances appertaining to the said railway, and shall work the said railway in such manner as will, to the satisfaction of the Government Engineer in executive charge of the road, avoid all risk of danger or annoyance to the ordinary road traffic.

27. The Company shall adopt and apply all such improvements in the said railway and in the rolling-stock and appliances thereon as the Secretary of State may from time to time consider necessary or desirable for the safety or convenience of the public.

28. The Company shall without delay, proceed to carry out all improvements, repairs, and alterations which, in the opinion of the Government Inspector, may be necessary or desirable to comply with the requirements of the Act, or to maintain the said railway and the rolling-stock, works, and appliances connected therewith up to a proper standard of efficiency, upon receiving notice to that effect from or on behalf of the Secretary of State at their office in the Bombay Presidency, and shall in like manner and upon receipt of the like notice carry out all repairs which, in the opinion of the Government Engineer in executive charge of the provincial road, shall be necessary to maintain the same in a proper state for the safety and convenience of the public.

If at the termination of this Contract any repairs, alterations, or improvements shall be necessary or desirable to satsify any or either of the above requirements, the cost of such repairs, alterations, or improvements shall be certified by the said Government Inspector or the said Gov-

ernment Engineer, as the case may be, and the Secretary of State shall be at liberty to deduct any sums so certified, which shall not be chargeable to capital under clause 34 of this Contract, from any moneys payable to the Company under the purchase clause of this Contract.

Traffic.

29. The railway shall be used for the purpose of carrying passengers, passengers' luggage parcels, animals, goods, and minerals.

30. The traffic at Bársi Road Junction station will be worked by the Great Indian Peninsula Railway Company in strict accordance with a working agreement to be arranged (subject to the approval of the Secretary of State) between the Railway Company and the Company.

31. The Company shall run at least one train daily for the conveyance of passengers, and goods, in each direction of the railway, unless, owing to accident or other cause, they establish, to the satisfaction of the Secretary of State, their inability to do so, and hereby bind themselves to carry with reasonable despatch, to the satisfaction of the Secretary of State, all passengers and goods seeking transport by the railway with the exception of the dangerous or offensive goods described in the Act.

Rates and Fares.

32. The Company shall be at liberty to charge for the conveyance of passengers, goods, and other traffic on the said railway rates and fares not exceeding the rates and fares specified in the schedule hereto. The goods classification from time to time in force on the Great Indian Peninsula Railway shall be adopted by the Company.

Police.

33. Should experience appear to the Secretary of State to prove that a force of police is required at some or all of the stations on the said railway for the preservation of law and order, the Secretary of State shall provide and maintain for that purpose such a force of police as he shall from time to time consider necessary. Three-tenths of the cost of any police so provided and maintained, including incidental expenses appertaining thereto, shall be borne by Government and the remaining seven-tenths of such cost shall be borne by the Company.

Capital Expenditure.

34. The Company shall submit all contracts and items of expenditure entered into or incurred in England, the cost of which is intended to be charged against capital, for the previous sanction of the Secretary of State, and all such contracts and items of expenditure entered into or incurred in India for the sanction of the Government of Bombay, and no expenditure against capital will be allowed to be charged by the Company for which the previous sanction of the Secretary of State or the Government of Bombay, as the case may be, shall not have been obtained. Subject to the provisions of the Indian Railways Act, 1894, the Secretary of State hereby sanctions the payment by the Company out of capital of interest at the rate of 4 per cent. on the amounts from time to time *bonâ fide* paid up on the issued share capital of the Company during the original construction of the railway and works hereby specified, but for no period subsequent to the date fixed for the completion of the same or any later date to which the completion may by agreement be postponed. The moneys paid out of capital under this section may be charged to capital account as part of the original cost of construction.

Capital Account to be kept by Company and Audit thereof.

35. The Company shall keep a Capital Account in Indian currency in the form required by the Secretary of State to be kept by the Indian Railway Companies working railways under the supervision of the Secretary of State, and the Company shall at its own cost render the Capital Account kept by it under this section to the Secretary of State at such times as he shall from time to time require.

36. In the Capital Account shall be entered all such of the expenditure and receipts by or on behalf of the Company in respect to its general undertaking contemplated by this Contract as are properly attributable to capital under clause 34 of this Contract. All payments made by the Company in England, and which ought to be entered in the said Capital Account, shall, for the purpose of such entry, be converted into Indian currency at the rate of exchange current at the time at which the payments are severally made.

37. The accounts of the Company in relation to its expenditure and receipts in India, England, and elsewhere on capital account in respect of its general undertaking as contemplated by this Contract, shall from time to time be audited on behalf of the Secretary of State (if he shall so require) as well as on behalf of the Company, and the Company shall produce to the auditors or auditor all vouchers, books, accounts, papers, and documents of the Company necessary for the purpose of audit, and afford to them or him all facilities requisite for the performance of their or his duties. Any correction made in the accounts by any person or persons who shall be acting as joint auditors or joint auditor on behalf both of the Company and of the Secretary of State shall be conclusive. If, consequent on the audit of any auditor acting exclusively on behalf of the Secretary of State, the Secretary of State shall require alterations to be

made in the accounts, and the Company shall object to the alterations, the matter in difference shall be referred to arbitration under the proviso for arbitration hereinafter contained. The necessary costs for the audit shall be defrayed by the Company and included in the Capital Account.

Returns.

38. The Company shall in forms to be prescribed by the Secretary of State, prepare half-yearly, or at such intervals as he may direct, such accounts and returns of its capital and revenue transactions and of its traffic as the Secretary of State shall require, and shall forward a copy of such returns to the Secretary of State at such times as he may direct.

Power for Secretary of State to execute Works on default by the Company.

39. In the event of any work required by the Act or by this Contract to be done by the Company, not being done by them, the Secretary of State may cause a notice to be served on the Company requiring them within a period to be prescribed in such notice to execute the work therein referred to, and if within the period so prescribed the requisition is not complied with, the Secretary of State, but without prejudice to any right which he may have to recover penalties from the Company under the provisions of the Act, may cause the work referred to in such notice to be done, and the cost thereof shall be recoverable from the Company in the manner provided for the recovery of penalties under the Act. The cost of any work required by the Secretary of State to be done by the Company to comply with the requirements either of the Act or of this Contract, whether done by the Company or by the Secretary of State, shall, if the work be new work, or if it shall have reference to the provision of additional plant, fixed machinery, or rolling-stock, or to substantial improvements or alterations of or additions to old works, plant, fixed machinery, or rolling-stock, whether required under clauses 27 or 28 of this Contract, or otherwise, be allocated to capital, and if the work shall consist of repairs, renewals, and replacements, the cost thereof shall be allocated to revenue; but in case of doubt such allocation shall be determined by the Secretary of State.

Reservations and Power of Purchase.

40. The Secretary of State reserves to himself all rights connected with any extension of the said railway.

41. The concession granted by this Contract shall confer upon the Company an exclusive right as carriers by railway over the tract traversed by the said proposed railway.

42. The Secretary of State may, by giving to the Company in England not less than 12 calendar months' notice in writing of his intention so to do, determine this Contract (if then subsisting) and purchase the undertaking of the Company, either on the 1st day of January 1917, or at the expiration of any subsequent period of ten years.

43. In the event of the determination of the Contract by such purchase as aforesaid, the Secretary of State shall, within four calendar months from the termination of the Contract, pay over to the Company in England in sterling a sum such as when added to any unspent capital shall amount to the total paid-up capital in sterling so far as such capital (other than unspent capital) shall have been expended on the undertaking with the authorisation of the Secretary of State, but subject to the deduction of such sums (if any) as may be due from the Company in respect of depreciation or defective maintenance under clause 28; and the Company, without acquiring or having the right to any further payment or compensation from the Secretary of State in respect thereof, shall relinquish and give up to the Secretary of State possession of all the land which the Company shall have acquired or been allowed the use for the purposes of this Contract, other than lands (if any) the cost of which has not been charged to capital, together with all stations, station yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, fixed machinery, conveniences, works, rails, fixtures, and plant then erected or being on the land to be relinquished and given up under this section, or in anywise belonging to the said railway or any part thereof, and all the rolling-stock, moveable machinery, live stock, carriages, vehicles, plant, and articles belonging to the Company and appropriated, either as regards purposes of construction or otherwise, to the said railway, or any part thereof, or any of the works or adjuncts thereof, and the then existing stock (if any) of stores belonging to the Company and charged to capital, and shall also deliver to the Secretary of State all plans, books, surveys, sections, printing, writing, and documents whatsoever in anywise connected with or with the construction of the said railway or any part thereof, or any of the works or adjuncts thereof. All the particulars mentioned in this section shall, at the time when the Secretary of State shall under this section be entitled to the delivery thereof, so far as not then already belonging, become his absolute property, free both as between the Secretary of State and the Company, and as between the Secretary of State and the incumbrancers (if any) from all incumbrances created by the Company, it being the intention of the parties hereto that the Secretary of State shall not be affected by any charge or incumbrance created by the Company, or any real or personal property which, during the continuance of this Contract, shall be in the possession of the Company.

44. Any money payable by the Secretary of State to the Company, under the preceeding section of this Contract, shall carry interest in favour of the Company at the rate of 3 per cent

per annum, to be computed from the time when the Contract shall terminate down to the time of payment, and the Secretary of State shall pay to the Company in England out of the revenues of India any interest accrued under this section in favour of the Company with the Capital money in respect of which the interest shall have become payable.

Delegation of Powers, &c.

45. The Secretary of State may delegate all or any of the powers and authorities vested in him under this Contract to the Governor of Bombay in Council, and any order, notice or requirement made or served upon the Company by or on behalf of the Governor of Bombay in Council shall for the purposes of this Contract be deemed to have been made or served by or on behalf of the Secretary of State.

46. The Company shall, at all times during the continuance of this Contract, maintain an office within the Presidency of Bombay with a properly qualified agent duly authorised to engage in official correspondence on behalf of the Company, and any order, notice, requirement, or communication served upon or made to such agent by or on behalf of the Secretary of State shall be deemed to have been served upon or made to the Company.

Arbitration.

47. If, in any case not herein specially provided for, any dispute, question, or controversy shall at any time arise between the Secretary of State and the Company touching this Contract, or any clause or thing herein contained or the construction hereof, or any matter connected with this Contract or the operation of the same, or the rights, duties, or liabilities of either party in relation to the premises, then and in every such case the matter in difference shall be referred to two arbitrators or their umpire, pursuant to and so as with regard to the mode and consequences of the reference, and in all other respects to conform to the provisions in that behalf contained in the Arbitration Act, 1889, or any subsisting statutory modification thereof; and upon every such reference the arbitrators and umpire shall respectively have the powers conferred by that Act upon arbitrators and umpires, and upon every such submission the provisions mentioned in the first schedule to that Act shall be implied, and every or any such reference may be made a rule of Her Majesty's High Court of Justice, or of any of Her Majesty's High Courts of Judicature in India, on the application of the Secretary of State or of the Company, and either the Secretary of State or the Company may instruct counsel to consent thereto for the other party.

In witness whereof Sir James Braithwaite Peile, K.C.S.I., and Field Marshal Sir Donald Martin Stewart, Bart., G.C.B., being two members of the Council of India, have hereunto set their hands and seals, and the Bársi Light Railway Company, Limited, have hereunto caused their common seal to be affixed, the day and year first above written.

Signed, sealed, and delivered by the said two members of the Council of India in the presence of

W. H. Treasure,
India Office,
Solicitor.

(Signed) J. Peile. Seal.

(Signed) D. M. Stewart. Seal.

The common seal of the Bársi Light Railway Company, Limited, was hereunto affixed in the presence of

A. Wilson, } Directors.
G. H. Hopkinson, }
W. A. Browne, Secretary.

Seal of the Bársi Light Railway Company, Limited.

The SCHEDULE above referred to.

MAXIMUM RATES AND FARES ADMISSIBLE.

Description.	Rates and Fares.
I. Passenger Fares :—	
First Class	24 pies per mile.
Second ,, ...	12 ,,
Third ,, ...	8 ,,
Fourth ,, ...	3 ,,
II. Luggage	4 pies per maund per mile.
III. Horses—single horse	24 pies per mile.
IV. Carriages—single carriage ...	4 annas per mile.
V. Dogs—each	8 annas per fifty miles.
VI. Parcels	Under seven seers, for the first fifty miles 6 annas. Every fifty miles beyond the first fifty, 3 pies per seer.

Description.	Rates and Fares.
VII. Goods Rates :—	
Fifth Class	54 pies per ton per mile.
Fourth ,, ...	36 ,, ,,
Third ,, ...	24 ,, ,,
Second ,, ...	18 ,, ,,
First ,, ...	12 ,, ,,
Food grains	12 ,, ,,
Coal	10 ,, ,,

VIII. A maximum terminal charge of one anna per maund can also be levied on all goods traffic both at the receiving station and at the station of delivery ; but no such charge is admissible at a junction station on any goods traffic booked to run through that station.

APPENDIX B.

Contract between Her Majesty's Secretary of State for India and the Ahmedabad-Parantij Railway Company, Limited, for the construction of the Ahmedabad-Parantij Railway.

THIS INDENTURE made the thirteenth day of March 1896 between the Secretary of State in Council of India of the one part, and the Ahmedabad-Parantij Railway Company, Limited, of the other part.

WITNESSETH, and it is hereby agreed and declared as follows :—

Interpretation of Terms.

1. In this Contract—

The expression "the Secretary of State" means the Secretary of State in Council of India.

The expression "the Company" means the Company party to these presents.

The expression "the said railway" means and includes the railway mentioned in the third clause of this contract, together with all the appurtenances thereof.

The expression "the working agency" means any State agency or other agency by which the said railway may for the time being be worked on behalf of the Secretary of State under the provision in that behalf hereinafter contained.

The expression "gross earnings" means and includes the gross earnings to be derived from the working of the said railway, and also the rents of any buildings belonging to the said railway and occupied by servants of the said railway or of the working agency which may be charged to the occupiers of such buildings under the rules in relation thereto for the time being in force on the railway of the working agency, and tolls on bridges and other sources of income which are treated as revenue on Indian railways generally, but does not include book entries for the carriage of stores to be used in the maintenance, or working of the said railway, or for services rendered and work done in relation thereto respectively, and for which no cash payment is made, nor any sum allowed by way of rebate under clause 28 hereof.

The expressions "net earnings" and "net receipts" have the meanings attributed to them respectively in clauses 27 and 28 hereof.

The expression "months" means calendar months.

Duration of Contract.

2. This Contract shall continue in force until it shall be determined under any provision hereinafter contained in that behalf.

Construction of Railway.

3. The Company shall, in the manner hereinafter provided, supply to the Secretary of State the funds required to enable him to construct, complete and make ready and fit for opening for public traffic throughout on a route to be selected and determined by the Secretary of State, a railway from outside the eastern fence of the Bombay, Broda and Central India Railway Station at Ahmedabad to Parantij, and if the proviso to this clause is acted upon, extending thence to Ahmednagar and (if the Udaipore State shall consent thereto) to Udaipore, with all such stations, station yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, fixed machinery, tools and plant, office furniture and equipment, conveniences, and works as shall be necessary or proper for the purposes of the said railway either as regards the due working of the same, or as regards the permanence of the same, and the protection of the same from destruction or injury by inundation, tempest, or otherwise. Provided always, that the Company may at any time give notice in writing to the Secretary of State of their desire that the said railway should be extended to Ahmednagar or Udaipore, or to both those places, subject as regards Udaipore to such consent as aforesaid, and after the receipt of such notice, and if the Company shall supply to the Secretary of State in manner to be directed by him the funds necessary for such extension, the extension referred to in such notice shall be deemed to be part of the said railway. But the Secretary of State may at any time give notice in writing to the Company calling upon it to make its election for or against such extension, and if the Company shall not within 12 months after the receipt of such notice give notice in writing to the Secretary of State of their desire to make such extension, it shall be deemed to have elected not to make it, and it shall thereafter have no claim to make it.

4. The Secretary of State shall from time to time provide free of cost to the Company the land in British territory which he shall consider requisite for the construction of the said railway and for the stations, station yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, conveniences, and works necessary or proper for the purposes of the said railway, as well as for quarrying, ballast, brickfields, and kindred purposes and shall allow the Com-

pany, or the working agency for the time being, to have possession during the continuance of this Contract of the land so provided. The Company shall from time to time, with the sanction of the Secretary of State, as soon as practicable, relinquish to the Secretary of State such of the land of which the Company shall have been allowed possession under this Contract as shall for the time being have become unnecessary to be retained by the Company for any of the purposes of this Contract. And as often as in the opinion of the Secretary of State, it shall appear to be unnecessary that the Company shall retain possession of any particular land of which the Company shall have been allowed possession under this Contract, the Secretary of State shall certify such his opinion to the Company. Upon receipt of such certificate, or so soon thereafter as may be, the Company shall state in writing whether it acquiesces in the opinion of the Secretary of State or whether it objects thereto, and if so, the grounds of its objection. If no objection is stated by the Company, or if the grounds of its objection (if any) are not in the opinion of the Secretary of State sufficient, the Company shall upon the requisition of the Secretary of State, forthwith relinquish to him the land in question.

5. The Secretary of State will use his influence to acquire for the Company from any Native State, through whose territories the said railway shall be carried, similar grants of land in their respective territories which the Secretary of State shall consider necessary or proper for the purposes of the said railway or any extension thereof; and the provisions of the preceding clause shall as far as possible extend to any land so granted.

6. The said railway shall be a single line of the metre gauge, and shall, as regards permanent way, station accommodation, and general structural character be equal in all respects to the standard of the Rajputana-Malwa Railway, except that the steel rails need not exceed 41¼ lbs. to the yard, so that it may be worked by the rolling stock in use on that railway, and so that it shall not require special or undue maintenance. Surveys, designs, specifications, and estimates in relation to the construction or execution of the said railway and stations, and other works, shall, so far as the same shall be required by the Secretary of State, be furnished by the Company to the Secretary of State, and shall be subject to his approval.

Provided always, that the company shall have free access to all surveys, plans, estimates or information prepared or obtained by the Scretary of State for facilitating the construction of the said railway, but the Secretary of State will accept no responsibility for the accuracy of any such surveys, plans, estimates, or information.

7. For the more convenient and economical construction of the said railway, the execution thereof will be undertaken by the Secretary of State through such agency as he shall appoint, but at the entire cost and risk of the Company, and so that under no circumstances shall any charge be placed on him by reason of this arrangement, directly or indirectly. The works shall be carried out in accordance with designs and specifications to be approved by the Secretary of State, and under the inspection and supervision of engineers to be appointed or approved by him for that purpose in India. The Company shall forthwith from time to time, and as required by the Secretary of State, supply him in India, under clause 29 hereof, with the funds necessary for carrying out the works as well for the cost of materials and labour, as for such remuneration (if any) as the Secretary of State may sanction to the officers and servants of the agency exclusively employed in or about the said construction, and other charges of whatever description.

To meet the expense of supervision, an amount equal to four per cent. on the capital outlay on the construction of the said railway and works exclusive of the prime cost, freight and insurance, and railway carriage of the permanent way and sleepers for the said railway shall be paid by the Company to the Secretary of State. The Company shall also pay a commission of 2½ per cent. on all stores purchased for the said railway and works in England or India by the Secretary of State or the working agency; but if the arrangements for shipping stores purchased in England shall be entrusted to any agency other than the working agency, by arrangement with the Secretary of State or the working agency, the Secretary of State or the working agency shall pay to such other agency the balance of such commission which shall remain after deducting actual disbursements made in connection with the preparation of specifications for and the supply, inspection, and approval of such stores.

8. All the expenditure by the Secretary of State on account of the construction of the said railway, or in connection therewith, as approved and sanctioned by the Secretary of State and certified under his authority, shall be accepted by the Company as conclusive, and shall not be liable to question in any particular.

9. The Company shall from time to time furnish the Secretary of State with full particulars of all expenditure incurred by them on account of the said railway under this Contract, and anyother information that he may require in respect of transactions relating to the said railway.

10. The Secretary of State shall from time to time furnish or cause to be furnished to the Company statements of the sums required from time to time by him or the working agency, and also complete accounts of the expenditure for the construction of the said railway incurred by him on behalf of the Company, together with suitable reports as to the progress and condition of the works.

11. The works, buildings, sidings and conveniences from time to time required within the boundaries of the Bombay, Baroda and Central India Railway for the purpose of effecting a

junction between the said railway and the Rajputana-Malwa Railway at Ahmedabad Station, as approved by the Secretary of State, shall be provided by or under the direction of the Secretary of State and free of cost to the Company. No charge or toll shall be made or levied upon or from the said railway or any persons or company working the same in respect of the use of the land, lines, platforms, buildings, or other conveniences at the said station in excess of the sum to be retained from the gross earnings of the said railway under clause 27 of these presents.

12. The Secretary of State shall from time to time notify to the Company the route of the said railway so far as such route shall from time to time have been determined by him.

13. The Secretary of State shall have power to determine the situation and dimensions of all stations, station-yards, offices, warehouses, houses for employés, conveniences, and works to be constructed in connection with or as part of the said railway.

14. The Secretary of State will make such arrangements with the railway administrations concerned that the rates to be charged to the Company or the Secretary of State for the carriage over the Rajputana-Malwa Railway, and over the Bombay, Baroda and Central India Railway of all materials, plant, and stores required for the construction of the said railway and the works connected therewith, shall be the same as are charged on those lines respectively for materials, plant, and stores used for similar purposes on those railways.

15. The Secretary of State will provide and maintain such a force of police as, with the approval of the Secretary of State, shall from time to time be required for the protection of so much of the said railway as shall for the time being be under construction. The cost of providing and maintaining such police shall be taken to be as from time to time stated by the Secretary of State, and shall be paid from time to time from the capital funds of the Company to the Secretary of State on demand.

16. The Secretary of State may from time to time construct at his own cost such electric telegraph and telegraphic appliances as he shall think fit along or upon the said railway, or any part or parts thereof, or any land or works belonging thereto, and may maintain and work the same electric telegraphs and telegraphic appliances as he shall think fit and may erect, maintain, make, do, and execute on the said railway, or on any lands or works belonging thereto, all such buildings, machinery, works, acts and things as he shall consider necessary or proper in relation to the construction, maintenance, use and working of the said electric telegraphs and telegraphic appliances. The Secretary of State shall be exclusively entitled to the possession of all buildings, machinery, works, and appliances erected or brought by him under the powers conferred on him by this clause on the said railway, or on any land or works belonging thereto.

Opening of the Railway.

17. From time to time, when and so often as an Inspecting Officer acting on behalf of the Secretary of State shall have certified that the whole or any part of the said railway has been constructed in accordance with the provisions herein contained and is ready and fit for the conveyance of passengers and goods, there shall be prepared by some person duly empowered by the Company in that behalf, and at the expense of the Company, a specification of such whole or part as aforesaid of the said railway, describing the nature and quality of the works and setting out fully the general details of the construction of the same as regards earthworks, bridges, ballast, permanent way, stations, buildings, and all other matters and things of a permanent character, so as to show in every particular the standard up to which the works have been constructed, together with plans and working drawings of the same; and also an account showing the amount of capital moneys expended thereon. Such specification, plans, working drawings, and account, hereinafter called documents, when approved by the Secretary of State, shall be signed by the Consulting Engineer of the Government of India or other officer or officers duly authorised in that behalf to act on behalf of the Secretary of State and by the Agent of the Company or other officer duly empowered to act on behalf of the Company, and shall be retained by the Secretary of State. The said specification, plans, and account shall from time to time be revised and completed up to date as occasion shall require.

18. As soon as may be after the said documents have been so approved and signed as aforesaid, such part of the said railway as the said specification, plans, and account respectively refer to shall be opened for public traffic, and may be worked in the manner hereinafter mentioned.

Maintenance and Working.

19. The Secretary of State shall thenceforth, until the determination of this Contract, work and maintain the said railway or such part thereof as shall for the time being have been so opened, and shall provide and maintain all necessary rolling stock through State agency or through another agency to be selected by him in that behalf, on the terms and subject to the provisions hereinafter expressed.

20. The Secretary of State shall have full power to enter into any contract or agreement with any working agency for the working, maintenance and management of the said railway during the period aforesaid or during any part thereof or may carry out the same through State agency. Any such contract or agreement may be to the purport and effect of the contract or

agreement set forth in the schedule hereto, with such additions, variations, or modifications (if any), subject always to the provisions of these presents, as the Secretary of State shall from time to time deem to be necessary or desirable. If and so long as the Secretary of State shall work the said railway or any part thereof through State agency the provisions set forth in the said contract, so far as applicable and as the circumstances of the case will permit, and with such additions, variations, and modifications, subject as aforesaid, as the Secretary of State shall deem to be necessary or desirable, shall be observed by the State agency.

21. All the business connected with the management and maintenance of the said railway and conducting the traffic thereon, including police and telegraph and telegraphic appliances, shall in all respects, as far as practicable, be carried on in the same manner and subject to the same regulations and control by the Secretary of State as the like business on the Rajputana-Malwa Railway, and the Company shall not interfere or be concerned with such business.

22. The rates and fares for the carriage of goods and passengers over the said railway or any portion thereof, shall be such as may from time to time be arranged between the Secretary of State and the working agency, and the classification of goods thereon shall be in conformity with that from time to time in force on the Rajputana-Malwa Railway; provided that the rates, fares, and terminals, if any, shall be within the maximum and minimum rates, fares, and terminals, if any, for the time being in force on the Rajputana-Malwa Railway.

23. If the Company shall, with the approval of the Secretary of State, provide on any of the bridges forming part of the said railway, roadways for foot-passengers, cattle, or carts or other vehicles, the working agency shall be at liberty to charge tolls on the traffic over such roadways according to tariffs to be settled by the Secretary of State.

24. The Company shall, during such time as the said railway or any part thereof shall be worked by the Secretary of State or through any such agency as aforesaid, be liable to provide funds for making good all damage to the said railway and works which shall be due to extraordinary casualty affecting the same, of such a nature that, in accordance with the customary practice on Indian railways, the cost of making good such damage would be made a charge against capital. Provided that if in any case the Secretary of State and the Company shall not agree as to the liability of the Company under this clause, the Secretary of State will cause the matter in question to be referred to arbitration in accordance with clause 55 hereof, and so far as it shall be decided on such arbitration that any charge should be excluded from working expenses it shall be borne by the Company and be charged to the capital account of the said railway, and such decision shall be binding on the Company.

Alterations, Improvements and Additions.

25. The Secretary of State may from time to time give notice in writing to the Company, and to the working agency on behalf of the Company, of any reasonable alteration, improvement, or addition which may, in his opinion, be required to be made in or to any part of the said railway or any of the stations or works belonging thereto, either for the protection and security of the works and stations, the safety of passengers or of the public or for meeting the development of traffic on or for the effectual working of the said railway or otherwise and which is estimated to cost more than Rs. 1,000. Such notice shall specify the alteration, improvement, or addition required and shall also in general terms describe the works to be executed for the purpose of effecting the same, and state approximately what such works are expected to cost. The Secretary of State shall provide, free of cost to the Company, any land that may be requisite for the purpose of the said works. Any land provided under the provisions of this section shall, as between the Secretary of State and the Company, be subject as nearly as may be to the stipulations and provisions to which it would have been subject under this Contract if it had been land provided by the Secretary of State for the original construction of the said railway, or of works necessary or proper for the purposes thereof, and the said works when executed shall be deemed to be works belonging to the said railway and the Company and the Secretary of State shall, subject to the provisions hereinafter contained, respectively be in the like relative positions in respect to the approval of the designs and construction of such works and the supply of funds to the Secretary of State as required by him for such construction as they respectively would have been in if the said works had been part of the original works belonging to the said railway. If on receiving any notice under this clause the Company shall fail or neglect to supply under clause 29 hereof the funds as required for any such works for which under this clause they are liable to make provision, the Secretary of State shall be at liberty by himself or through the working agency to provide all or any of the moneys required for the said works and to expend the same in the execution of such works and the Company shall from time to time on demand pay to the Secretary of State, or into such Government Treasury in India as he shall from time to time appoint for the purpose, a sum equal to the amount which the Secretary of State shall from time to time have expended in manner aforesaid as stated by him. Provided always, that in case the Company shall object to the reasonableness of any work estimated to cost more than Rs. 10, 000 required by the Secretary of State to be done under the provisions of this clause for meeting the development of traffic, or for any reason other than the safety of passengers or of the public, or the effectual working of the railway in the manner above provided, and the Secretary of State shall not withdraw his notice to do the work, the matter in difference shall be referred to arbitration under the proviso for arbitration hereinafter contained, and the Company shall not be bound to provide the funds therefor until an award on such reference is made

upholding the reasonableness of the requirement of the Secretary of State. The cost of such reference shall be borne in such manner as the arbitrators shall award, and if and so far as such cost shall be directed to be borne by the Company, the same shall be a charge against the capital of the Company.

26. The cost of works the execution of which shall be required under the preceding clause and shall be carrried out by the working agency on behalf of the Company shall be dealt with as follows:—

(*a*) All such works costing more than Rs. 1,000 shall be charged to the capital account of the Company.

(*b*) Petty works costing not more than Rs. 1,000 each shall be charged to revenue, and shall be met from the sum allowed to the working agency for the maintenance and working of the said Railway. Provided always, that if for any half year the aggregate expenditure on petty works thereon shall exceed 20 rupees per mile opent such excess shall be charged to the capital account of the said railway, and shall be me, by the Company.

Application of Gross Earnings.

27. Out of the gross earnings to be derived from working the said railway or any part thereof, the Secretary of State shall in each half-year retain such a percentage as is in the 23rd clause of the contract or agreement set forth in the schedule hereto provided to be paid over to the working agency therein referred to; or (if such contract shall not be entered into or shall be determined before the expiration or determination of this contract), such a percentage as may be provided in any other other contract or agreement which may be entered into under the 20th section of this Contract); or (if the said railway shall be worked and maintained through State agency) such a percentage as the Secretary of State shall consider just or reasonable, but such percentage not in any case to exceed for any half-year such a percentage of the gross earnings for that half-year as shall be equivalent to the percentage of the working expenses in relation to gross earnings of the Rajputana-Malwa Railway for the same half-year, and not to exceed in any year 50 per cent. of the gross earnings of the said railway for the same year; which percentage so retained shall be in full satisfaction and remuneration for the use of all necessary rolling stock and machinery (other than fixed machinery), and for working, managing and fully and efficiently maintaining, renewing, and upholding the said railway and railway stations, station yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, fixed machinery, tools and plant, office furniture and equipment, conveniences and works, and the remainder of such gross earnings for each half-year shall be the net earnings of the Company for the said half-year, and shall be paid by the Secretary of State to the Company, less any sum which may have been advanced by the Secretary of State in anticipation of the declaration of a dividend and on account thereof.

Provided always that the Secretary of State shall be at liberty to apply any moneys payable to the Company under this clause to any of the purposes for which the Company are under this Contract bound to provide the funds, in case there shall be no capital money in the Government Treasury at the time available, and also to deduct from any such moneys all moneys (if any) which shall for the time being be owing to the Secretary of State by the Company under this Contract, and which the Company ought to have paid, but shall have failed to pay into any Government Treasury in India. All moneys so retained and applied or deducted to be afterwards recouped to the Company out of capital as soon as the same can be raised.

Rebate.

28. The Secretary of State shall allow to the Company, in respect of and at the end of each calendar year commencing at the close of the period during which interest shall be payable out of capital under clause 34 hereof, by way of rebate, such a sum not exceeding in any year 10 per cent. of the combined shares attributable to the Bombay Baroda and Central India Railway and the Rajputana-Malwa Railway, of the gross earnings from traffic except stores, interchanged between the said last-mentioned railways, or, either of them, and the said railway, as shall, together with the net earnings of the Company for the said year, make up an amount equal to interest for the year at a rate of 4 per cent. per annum on the actual expenditure charged in the capital account, and shall also allow the sum of Rs. 5,000 for each year for or towards the office expenses and the expenses of management of the Company, and shall also pay all such legal expenses as may be properly incurred by the Company and approved by the Secretary of State of the Government of India and and as are debitable to revenue. The payments under this clause shall be calculated at the close of each year, but payments on account and subject to adjustment may be made at the close of the first half of each year. The Company's net earnings for each year together with such rebate as aforesaid for such year, and the said annual sum of Rs 5,000 and the other moneys payable to the Company under this clause, shall constitute the Company's net receipts for such year.

Capital Expenditure.

29. The Company shall, within such period and by such instalments as the Secretary of State shall prescribe, pay into such Treasury in India as the Secretary of State shall prescribe an aggregate sum of 20 lákhs of rupees, or such less sum as the Secretary of State shall think sufficient, deducting therefrom the amount payable to the Promoters for their commission and

legal and other expenses, and also all other expenses referred to in clause 33, to be raised in shares or stock or by the issue of debentures or debenture stock as the original capital of the Company. The aggregate of the amounts payable respectively on application and allotment of the aforesaid sum of 20 lákhs of rupees, or such less sum as aforesaid, shall be at the rate of Rs. 100 per share of Rs. 500 and shall constitute the first of the said instalments.

30. All moneys which the agency to be appointed by the Secretary of State for the construction of the said railway or the Company shall, to the satisfaction of the Secretary of State, require to defray expenditure on behalf of the Company under this Contract, not exceeding in the aggregate the amount paid to the Secretary of State under clause 29, shall be supplied to the said agency or the Company by the Secretary of State in India, according to such arrangements as shall from time to time be made between the Secretary of State and the said agency.

31. Whenever the expenditure on account of the said railway properly chargeable to capital, shall exceed the said sum of 20 lákhs of rupees, and further moneys shall be required for the like expenditure or for the extensions referred to in clause 3, the Secretary of State may require the Company to raise such additional amount as shall be deemed by him necessary for the construction of the extensions to Ahmednagar or, subject to such consent as aforesaid, Udaipore under clause 3, or of such additional works as may be required under the provisions of clause 25 of this Contract.

32. Except as herein provided, no capital expenditure by the Company shall be allowed as between the Secretary of State and the Company unless the prior sanction of the Secretary of State shall have been obtained thereto.

33 The Company shall pay, as the Secretary of State shall require, such amount as shall be approved by the Secretary of State on account of the cost of all preliminary surveys and estimates and other expenses undertaken on behalf of the Company for the purposes of the said railway, before the date of the opening of the same for traffic throughout inclusive of the cost of and incidental to the formation and registration of the Company and may charge the same as capital expenditure of the said railway.

34. The Company (so far as authorised so to do by its constitution, and subject to the law for the time being in force in British India) may, during a period which shall extend to the close of the half-year next after the half-year during which the said railway shall be actually completed and opened for traffic, pay out of capital any sums by way of interest on the amounts from time to time *bonâ fide* paid up on the issued share capital of the Company, not amounting, together with the net receipts of the Company for the period in respect of which such interest is paid, to more than 4 per cent. per annum on the sums in respect of which the interest is paid; and may also during the period aforesaid pay out of capital the sum of Rs. 5,000 per annum towards the office expenses and expenses of management of the Company. The moneys paid out of capital under this clause may be charged to capital account as part of the original cost of construction.

Restriction on raising of new Capital.

35. The Company shall not, during the continuance of this Contract without the sanction in writing of the Secretary of State and of the working agency respectively, first obtained, at any time increase its share or stock capital, or borrow any moneys; but this stipulation shall not necessitate the sanction of the Secretary of State or of the working agency to the borrowing of money by the Company at a reasonable rate of interest for *bonâ fide* temporary purposes.

Accounts.

36. The Secretary of State shall keep or require to be kept in rupee currency in India a distinct and separate account of the gross earnings derived by him or by the working agency from the working of the said railway or of such part or parts thereof as shall for the time being be open for public traffic. Such account shall be made up half-yearly to the 30th day of June and the 31st day of December in each year, and a summary thereof shall be rendered to the Company in India. The Secretary of State shall also within a reasonable time furnish to the Company a return of the approximate gross earnings for each week.

37. The Secretary of State shall keep or cause to be kept in India all such subsidiary accounts and vouchers as shall be proper and sufficient for the preparation and verification of the account aforesaid; and the said accounts and vouchers shall be open at all reasonable times to inspection and transcription by some person or persons to be authorised by the Company in that behalf and approved by the Secretary of State and at the expense of the Company. The Secretary of State shall afford or cause to be afforded to such person or persons all proper and sufficient facilities for such inspection and transcription, and shall on the reasonable requirement of the Company and at the expense of the Company (provided such requirement be notified in writing to the Secretary of State within 30 days after the receipt by the Company of the summary aforesaid for any half year) duly verify or cause to be verified the accounts for such half-year. If after such verification the Company shall require any alteration to be made in any such account or summary, and if the Secretary of State shall not consent to the proposed alteration the matter in difference shall be referred to arbitration under the proviso for arbitration hereinafter contained.

38. Every summary of account with respect to which, or to the accounts on which it is based, no such written requirement of verification as aforesaid shall have been delivered to the Secretary of State within the 30 days after the receipt by the Company of the said summary aforesaid, shall be deemed to be conclusively settled between and shall be binding upon the parties, except that if and whenever any error shall be discovered in any such summary or account such error shall be rectified and allowed for in the account for the half-year in which the error shall be discovered or for any subsequent half-year.

39. The Secretary of State shall keep or cause to be kept an account between the Secretary of State and the Company in rupee currency, in which from time to time shall be entered—

(*a*) *To the Credit of the Company,* all sums paid by the Company to the Secretary of State under clause 29 hereof, and all receipts of the Secretary of State arising from the sale of stores or other property originally paid for from capital or otherwise properly attributable to capital in accordance with the usage of Indian Railways or this Contract.

(*b*) *To the Debit to the Company,* all expenditure incurred by the Secretary of State properly chargeable to capital under the provisions herein contained, and all sums becoming payable to the Secretary of State under the said provisions and from time to time remaining unpaid.

And if at the end of any half-year there shall be a balance to the debit of the Company on the said account, and such balance be not paid to the Secretary of State on or within a month after his demand, the Company shall pay to the Secretary of State interest on the amount so remaining unpaid at the rate of 6 per cent. per annum from the date of balancing such half-yearly account, and the Secretary of State may deduct all such interest from any sums becoming payable to the Company under the provisions of this Contract.

40. The Secretary of State shall keep or cause to be kept as between the Secretary of State and the Company in rupee currency, an account of the expenditure and receipts in reference to the said railway attributable to capital (hereinafter referred to as "the Capital Account"), in which shall from time to time be entered :—

To the Debit of the Account.—

(*a*) All such expenditure of the Secretary of State or of the agency to be appointed by him as aforesaid on account of the said railway as stated by the Secretary of State as shall be chargeable to capital.

(*b*) All such expenditure on the said account, including payment of interest on capital under clause 34, sums paid for office expenses and expenses of management of the Company and other sums properly chargeable to capital under the provisions of this Contract, as shall have been respectively approved by the Secretary of State.

To the Credit of the Account.—All sums received by the Secretary of State from the sale of stores or other property orginally paid for from capital or otherwise properly attributable to capital in accordance with the usage of Indian railways or this Contract, which sums have been entered in the account described in clause 39.

41. In connection with the said Capital Account there shall be kept by the Secretary of State or the working agency all such subsidiary accounts in the form required by the Secretary of State as are from time to time kept by the Indian railway companies working railways under the supervision of the Secretary of State.

42. In any case where any question may or might arise as to whether any expenditure in connection with the said railway is to be treated in the whole or in part as a charge on capital or how the same is to be dealt with, the question shall be determined on the general principle that capital, besides bearing the cost of the original construction and completion of the said railway and the stations, station yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, fixed machinery, conveniences, and works belonging thereto, and of the original equipment of the said railway and its appurtenances with plant and fixed machinery is to bear the cost of new works, of additional plant and fixed machinery, and of substantial improvements of and additions to old works, plant, and fixed machinery provided in pursuance of any requirement by the Secretary of State under the 25th clause of this Contract, and not being petty works within the meaning of the 26th clause of this Contract, and shall be debited with all moneys expended by way of making good any damages pursuant to the 24th clause of this Contract, and that the cost of repairs, restorations, renewals and replacements and of petty works within the meaning of the 26th clause of this Contract, is to be met by the working agency.

Audit.

43. The accounts of the Company in relation to its expenditure and receipts and of the expenditure of the Secretary of State or of the agency to be appointed by him as aforesaid on

account of the Company, whether in India, England and elsewhere, on capital account, shall from time to time be audited on behalf of the Secretary of state (if he shall so require) as well as on behalf of the Company, and the Company shall produce to the auditors or auditor all vouchers, books, accounts, papers, and documents of the Company necessary for the purpose of audit, and afford to them or him all facilities requisite for the performance of their or his duties. Any correction made in the accounts by any person or persons who shall be acting as joint auditor or joint auditor on behalf both of the Company and of the Secretary of State shall be conclusive. If consequent on the audit of any auditor acting exclusively on behalf of the Secretary of State, the Secretary of State shall require alterations to be made in the accounts, and the Company shall object to the alterations, the matter in difference shall be referred to arbitration under the proviso for arbitration hereinafter contained. The necessary costs of the audit (other than the costs of such arbitration), and such of the costs of such arbitration as the arbitrators shall direct to be borne by the Company, shall be defrayed by the Company, and included in the Capital Account.

Miscellaneous.

44. In any case not herein expressly provided for, the Company shall indemnify the Secretary of State against any pecuniary liability which he may incur in respect of the construction, extension, or improvement of the said railway, or the maintenance or working thereof, under the contract or agreement set forth in the schedule hereto, or any other contract or agreement which may be entered into under the 20th section of these presents.

45. The Company shall not at any time during the continuance of this Contract, without the sanction in writing of the Secretary of State first obtained, engage in, or carry on, or apply capital to any business other than the business provided by this Contract to be carried on by the Company, and business incidental or subsidiary thereto, or participate or co-operate with any person, company, or corporation in carrying on any business other than as aforesaid.

46. The Secretary of State shall promote the passing by the Legislature in India of any Act or Acts which may be required to enable the Company to carry into effect this contract.

47. No claim shall be made upon the Secretary of State by the Company for compensation in respect of the prejudicial effect upon the said railway or the profits of the said railway, of any Act of the Indian Legislature of general applicability for the time being in force, and the Company and its undertaking shall be subject to the provisions of every such Act as last aforesaid.

48. Any notice, determination, decision, direction, requirement, requisition, demand, appointment, certificate, expression of opinion, approval or sanction to be given or signified on the part of the Secretary of State for any of the purposes of or in relation to this Contract, or any of the powers or provisions herein contained, shall be sufficient and binding if in writing signed by the Secretary of State, or one of his Under Secretaries, or by a Secretary of the Government of India, or by any other officer or servant authorised to act on behalf of the Secretary of State in respect of the matters to which the same shall relate, and the Secretary of State shall not in any case be bound in respect of any of the matters aforesaid unless by some writing signed in the manner before mentioned in this clause.

49. The registered office of the Company shall at all times during the continuance of this Contract be situate in Bombay.

Determination of Contract and matters consequent thereon.

50. The Secretary of State may determine this Contract in manner hereinafter mentioned (that is to say) :—

1. If before the said railway is open for traffic throughout the Company shall fail, on demand by the Secretary of State, to supply him with the funds required to enable him to construct and complete the said railway as hereinbefore agreed, the Secretary of State, notwithstanding any grants of further time, or any negotiations between the Secretary of State, and the Company may determine this Contract, by giving to the Company notice in writing of such determination (which notice is herein referred to as notice of determination).

2. The Secretary of State may by giving to the Company not less than 12 months' previous notice in writing (which notice is herein referred to as "notice of purchase") determine this Contract (if then subsisting) either on the 31st day of December 1917, or on the 31st day of December in the last year of any subsequent period of 10 years, or on the 31st day of December 1946.

AND IT IS HEREBY AGREED AND DECLARED that at the time at which this Contract shall terminate, as hereinbefore provided, the Company without acquiring or having the right to any compensation or payment from the Secretary of State in respect thereof except as hereinafter specifically provided, shall relinquish and give up to the Secretary of State, or to any Native State, as the case may be, possession of all land of which they respectively shall have allowed the Company to have possession under or for any of the purposes of this Contract (so far as not then already

restored to the Secretary of State) or such Native State, together with all the stations, station yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, fixed machinery, conveniences, works, bridges, rails, fixtures, and plant then erected or being on the land to be relinquished and given up under this clause or in anywise belonging to the said railway or any part thereof, and the then existing stock (if any) of stores belonging to the Company and appropriated, whether for the purposes of construction or otherwise, to the said railway or to any of the adjuncts thereof or to any part of the equipment thereof, and shall also deliver to the Secretary of State all plans, books, surveys, sections, printings, writings, and documents whatsoever in anywise connected with, or with the construction of the said railway or any part thereof, or any of the works or adjuncts thereof inclusive as aforesaid. All the particulars mentioned in this clause shall at the time when the Secretary of State shall under this clause become entitled to the delivery thereof, so far as not then already belonging to him, become his absolute property, free both as between the Secretary of State and the Company, and as between the Secretary of State and the incumbrancers (if any), from all incumbrances whatsoever created by the Company, it being the intention of the parties hereto that the Secretary of State shall not be affected by any charge or incumbrance of any kind created by the Company on any real or personal property which during the continuance of this Contract shall be in the possession of the Company, whether belonging to the Secretary of State or to the Company. The rights of either party to this Contract as against the other party hereto in respect of the previous breach of any covenant herein contained shall continue to subsist notwithstanding the termination of this Contract in any manner whatsoever, and such termination shall not affect the right of either party hereto to require the payment of any unpaid money which under the provisions of this Contract shall have become actually payable to or on behalf of such party by the other party hereto.

51. If this Contract shall be determined by notice of purchase, the Secretary of State shall within four calendar months from the time at which this Contrat shall, except as hereinafter provided, so be determined, pay to the Company in India out of the revenues of India in rupee currency the following sums; that is to say, (i) if the Contract shall be determined by notice of purchase on the 31st day of December 1917, or at the expiration of any subsequent period of 10 years, a sum of money equal to 25 times the amount of the average yearly net earnings derived by the Company from the said railway during the five years immediately preceding the time at which this Contract shall be determined, but so that the total amount so payable to the Company shall not in any case exceed by more than 20 per cent, the total capital expenditure of the Company as appearing on the Capital Account of the Company, or be less than such total capital expenditure. And (ii) if this Contract shall be determined by notice of purchase on the 31st day of December 1946 (50 years), then the total amount of such capital expenditure as aforesaid.

52. If this Contract shall be determined by notice of determination, the Secretary of State shall, except as hereinafter provided, within four calendar months from the time of such determination pay to the Company in India out of the revenues of India, in rupee currency, the fair value of the said railway and works so far as the same shall then have been constructed, and of all rails, fastenings, sleepers, fixed machinery, plant, and stores which shall be relinquished, given up, or delivered by the Company to the Secretary of State under the 50th clause of this Contract. The fair value of property for the purposes of this clause shall, in case of difference between the Secretary of State and the Company, be ascertained by arbitration under the proviso for the arbitration in that behalf hereinafter contained, and shall be calculated without reference to expectations of future profits to be derived from working the said railway.

53. The Secretary of State shall, after making due allowance for any sum remaining in his hands unexpended from the moneys supplied to him by the Company or received by him on their account, be at liberty to deduct any amount that may be owing by the Company to him at the time when this Contract shall terminate from any moneys which but for this proviso would be payable by him to the Company under the provisions of clause 51 or clause 52.

54. The clear balance of money payable by the Secretary of State to the Company under the 51st or the 52nd clause of this Contract shall carry interest in favour of the Company at the rate of 3 per cent. per annum, to be computed from the time when this Contract shall terminate down to the time of payment or tender of such clear balance by or on behalf of the Secretary of State to the Company. And the Secretary of State shall pay to the Company in India out of the revenues of India any interest accrued under this clause in favour of the Company with the capital money in respect of which the interest shall have become payable.

Arbitration.

55. If any dispute, question, or controversy shall at any time arise between the Secretary of State and the Company touching this Contract, or any clause or thing herein contained or the contruction hereof, or any matter connected with this Contract, or the operation of the same, or the rights, duties or liabilities of either party in relation to the premises then and in every such case the matter in difference shall be referred to two arbitrators or their umpire pursuant to and so as with regard to the mode and consequences of the reference, and in all other respects to conform to the law in force in British India for the time being relating to arbitration.

In witness whereof Lieut-Colonel Henry Oliphant Selby, R. E., one of the Secretaries to the Government of Bombay, on behalf of the Secretary of State in Council of India,

by the order of the Governor in Council of Bombay, has hereunto set his hand and seal, and the Ahmedabad-Parantij Railway Company, Limited, have hereunto caused their common seal to be affixed, the day and year first above written.

Signed, sealed, and delivered by the said Lieut-Col. H. O. SELBY, R. E., Secretary to the Government of Bombay, Public Works Department (Railway), in the presence of } HENRY OLIPHANT SELBY.

C. R. HOSKYN,

Examiner of Guaranteed Railway Accounts, Bombay.

The common seal of the Ahmedabad-Parantij Railway Company, Limited, was hereunto affixed in the presence of

R. VALENTINE REID,

NOWROJEE PESTONJEE VAKIL,

Two of the Directors of the Ahmedabad-Parantij Railway Company, Limited.

KILLICK, NIXON & Co.,

Agents

APPENDIX C.

Contract between Her Majesty's Secretary of State for India and the Bombay, Baroda and Central India Railway Company, in connection with the construction and working of the Ahmedabad-Parantij Railway.

THIS INDENTURE, made the 4th day of June 1896, BETWEEN THE SECRETARY OF STATE IN COUNCIL OF INDIA (hereinafter called "the Secretary of State") of the one part, and THE BOMBAY, BARODA, AND CENTRAL INDIA RAILWAY COMPANY (hereinafter called "the Company") of the other part.

WHEREAS by an Indenture dated the 24th day of September 1884 and made between the Secretary of State of the one part and the Company of the other part (which Indenture is hereinafter referred to as the principal contract), the Company contracted for the maintenances management, use, and working by the Company of the Rajputána-Malwa Railway; and the expression "the undertaking" was defined to mean the Rajputána-Malwa Railway, with such improvements, alterations, and additions as therein mentioned.

AND WHEREAS the Secretary of State has entered into a Contract, dated the 13th day of March 1896, with the Ahmedabad-Parantij Railway Company, Limited, with the object (among other things) of constructing, on a route to be determined by the Secretary of State, railway from outside the eastern fence of the Bombay, Baroda and Central India Railway Station at Ahmedabad to Parantij, and in certain events extending thence to Ahmednagar and Oodeypore with stations, station yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, fixed machinery, tools and plant, office furniture and equipment, conveniences, and works (all which proposed railway, stations, station-yards, sidings, crossing-places, bridges viaducts, offices, warehouses, houses for employès, fixed machinery, tools and plant, office furniture and equipment, conveniences, and works are hereinafter meant by and included in the expression "the said railway").

AND WHEREAS one of the terms of the said Contract is that the Secretary of State shall maintain and work the said railway as and when completed, either through State agency, or through some other agency to be selected by him, and that he shall have full power to enter into this present Contract for the working, maintenance, and management of the said railway.

AND WHEREAS the Company have agreed to work, maintain, and manage the said railway upon the erms and conditions hereinafter contained.

NOW THIS INDENTURE WITNESSETH:—

Interpretation of terms.

1. The definitions in the principal Contract contained shall apply to this Contract except so far as the same are expressly varied.

The expression "gross earnings" means and includes the gross earnings to be derived from the working of the said railway, and also the rents of any buildings belonging to the said railway and occupied by servants of the Company which may be charged to the occupiers of such buildings under the rules in relation thereto for the time being in force on the undertaking, and tolls on bridges and other sources of income which are treated as revenue on Indian railways generally, but does not include book entries for the carriage of stores to be used in the maintenance or working of the said railway, or for services rendered and work done in relation thereto respectively, and for which no cash payment is made, nor any sum allowed by way of rebate under clause 25 hereof.

The expression "months" means calendar months.

Ahmedabad Station and Junction thereat.

2. The Secretary of State and the Company shall from time to time agree upon the additional works and conveniences to be constructed at the said Ahmedabad Station of the Bombay Baroda and Central India Railway, or in extension thereof, to meet the traffic of the said, railway; and, upon any such agreement being made, the Company shall prepare plans and specifications of said additional works and conveniences, and of the junction with the undertaking to be made at Ahmedabad, and shall submit the same to the Secretary of State for his approval. Such plans and specifications, when approved by the Secretary of State, shall be signed by the Consulting Engineer of the Government of India, or other officer duly authorised in that behalf to act on behalf of the Secretary of State, and by the Company's engineer on behalf of the Company. Any such additional works and conveniences at the said junction shall respectively be constructed by the Company on land at Ahmedabad forming part of the undertaking, or of the Bombay, Baroda and Central India Railway, and shall be held by the Company, subject to the use thereof for the purposes of the said railway, upon the terms hereinafter mentioned, or such other terms as may from time to time be agreed upon by the Secretary of State and the Company. No charge or toll shall be made or levied upon or from the Ahmedabad-Prantij Railway Company in respect of the use of the lines, platforms, buildings, or other conveniences at the said Ahmedabad Station in excess of the sum to be retained from the gross earnings of the said railway under section 23 of this Contract.

3. The Secretary of State shall from time to time, on the application of the Company, provide and hand over to the Company, subject to the conditions of section 60 of the principal contract, such land as the Secretary of State may consider to be necessary for the purpose of constructing the said additional works and conveniences, and for making the said junction. The Company shall forthwith or upon provision as aforesaid of the necessary land, if it shall be required, proceed with diligence in the construction of the said additional works and conveniences and junction, in accordance with the said plans and specifications.

4. The Company shall, during the construction of the said railway, convey over the lines of the undertaking and of the Bombay, Baroda and Central India Railway all materials, plant and stores required for the construction of the said railway at the same rates as are charged on the undertaking and on the Bombay, Baroda and Central India Railway for such materials, plant, and stores used for similar purposes on those railways respectively.

Opening of Railway.

5. From time to time when and as often as an inspecting officer acting on behalf of the Secretary of State shall have certified that the whole or any part of the said railway has been constructed in accordance with the provisions herein contained, and is ready and fit for the conveyance of passengers and goods, the Secretary of State will furnish to the Company, free of all cost to the Company, a specification of such whole or part of the said railway describing the nature and quality of the works and setting out fully the general details of the construction of the same as regards earthworks, bridges, ballast, permanent way, stations, buildings, and all other matters and things of a permanent character, so as to show in every particular the standard up to which the works have been constructed, together with plans and working drawings of the same. Such specification, plans, and working drawings, hereinafter called documents, shall be submitted to the agent of the Company in India, and when finally accepted by him shall be signed by him on behalf of the Company and by the Consulting Engineer of the Government of India, or other officer duly authorised in that behalf to act on behalf of the Secretary of State, and shall be retained by the Company. The said specification and plans shall from time to time be revised and completed up to date as occasion shall require. The Secretary of State shall guarantee the Company undisturbed possession at all times during the continuance of this Contract of each and any portion of the said railway handed over to them.

6. As soon as may be after the said documents have been so approved and signed as aforesaid, such part of the said railway as the said specification, plans, and working drawings respectively refer to shall be opened for public traffic and may be worked in the manner hereinafter mentioned.

Maintenance and Working.

7. The Company shall thenceforth, until the determination of this Contract, work and maintain the said railway or such part thereof as shall for the time being have been so opened, on the terms and subject to the provisions hereinafter expressed.

8. All the business connected with the management and maintenance of the said railway and conducting the traffic thereon, including police and telegraphs and telegraphic appliances shall in all respects, as far as practicable, be carried on in the same manner and subject to the same regulations and control by the Secretary of State as the like business on the undertaking as now carried on under the principal Contract.

9. The Company shall charge such rates and fares for the carriage of goods and passengers over any portion of the said proposed railway, as shall from time to time be agreed upon between the Company and the Secretary of State, and adopt such classification of goods thereon as shall be from time to time in force on the undertaking. Provided that such rates, fares, and terminals, if any, are within the maximum and minimum rates, fares, and terminals, if any, for the time being in force on the undertaking. The apportionment of through rates for traffic passing over the said proposed railway to or from the undertaking or the Bombay, Baroda and Central India Railway shall be subject to agreement between the Secretary of State and the Company.

10. The Company shall be at liberty to charge tolls according to tariffs to be settled by the Secretary of State on traffic over any roadways on bridges (if any), for foot-passengers, cattle, or carts or other vehicles.

Application of certain Conditions of Principal Contract.

11. The conditions with respect to the provision of a police force, and the provision and use of telegraphs and telegraphic appliances, and (except as is hereinafter otherwise expressly provided) with respect to moneys supplied by the Secretary of State for the purposes of the said railway, except as is hereinafter otherwise expressly provided, shall be the same as are by the principal Contract prescribed with reference to the same matters respectively in respect of the undertaking, but the Secretary of State shall allow the Company the use of as many wires as they need at the same rate per mile as he charges for the use of wires on the Rajputana-Malwa Railway.

12. During the continuance of this Contract the Company shall keep the said railway and works, or such part thereof as shall for the time being be open for public traffic, supplied with rolling stock, plant, and machinery, other than fixed machinery, as if it were part of the undertaking, and shall manage, use and work the said railway and works or such part thereof as aforesaid, and convey traffic thereon, upon, under, and subject to (save as is by this Contract otherwise expressly provided) the like terms, conditions, and restrictions as are by the principal Contract prescribed in respect of the management, use, and working of the undertaking and the conveyance of traffic thereon by the Company, and in respect of the supervision and control of the Company by the Secretary of State. And in all respects not otherwise provided for by this Contract, the Secretary of State and the Company respectively shall and may with reference to the respective matters aforesaid have, execute, enjoy, put in force, and be subject to the like rights, powers, authorities, privileges, provisions, regulations, duties, and obligations as are by the principal Contract in respect of such matters respectively given or reserved to or imposed upon the Secretary of State and the Company respectively: Provided always, that nothing in this Contract contained shall operate so that the said railway and works shall form part of the undertaking.

13. The Secretary of State may from time to time, and with or without an application from any railway administration or person, call upon the Company to agree, and subject to the conditions of clause 9 the Company may agree, with the administration or administrations of any other railway or railways in connection with or with which there shall be an interchange of traffic with the said railway to through rates for the traffic between the stations of the said railway and those of such other railway or railways, and likewise to the apportionment of such rates among the administrations of such railways and the Company. If the Company and the said administrations, or any of them, should fail to agree in the settlement of such through rates or their apportionment, and such administrations should agree in writing to be bound by the decisions of the Government of India, or any authority duly appointed by the said Government in that behalf, in respect of the matters in dispute, such decisions shall be binding on the Company so long as the said administrations continue to act in accordance therewith. In arriving at its decisions the Government of India, or the said authority, as the case may be, shall take into consideration all the circumstances of the case, including any special expense incurred in respect of the construction, maintenance, or working of the route or any part of the route, as well as any special charges which any administration may have been entitled to make in respect thereof.

Alterations, Improvements, and Additions.

14. The Secretary of State may from time to time give notice in writing to the Company of any reasonable alteration, improvement, or addition which may, in his opinion, be required to be made in or to any part of the said railway or any of the stations or works belonging thereto or the said junction at Ahmedabad, either for the protection and security of the said works and stations, the safety of passengers or of the public, or for meeting the development of traffic on or the effectual working of the said railway or otherwise and which is estimated to cost more than Rs. 1,000. Such notice shall specify the alteration, improvement, or addition required, and shall also in general terms describe the works to be executed for the purpose of effecting the same and state approximately what such works are expected to cost. On receiving any notice under this clause the Company shall, with all reasonable speed execu the works described therein, the Secretary of State (except in the case of alterations or improvements in or additions to the said station at Ahmedabad or the said junction) supplying the necessary funds, or causing the same to be supplied, and providing, free of all costs to the Company, any land that may be required for the purpose. If in any case the Company shall neglect to proceed with the proposed works, or fail to complete the same to the satisfaction of the Secretary of State, the Secretary of State may enter on the said railway and works and execute the said works.

15. On the completion of works so required, as well as on the completion of the works to be constructed under clause 3 (Ahmedabad Station), a specification such as is described in clause 5, with necessary plans, shall be prepared and signed on behalf of the Company and of the Secretary of State respectively as therein provided, and delivered to the Secretary of State, together with a similarly certified statement of the costs of the said works. All such specifications and plans shall be corrected from time to time, when additions or alterations are made to the works of the said railway.

16. The cost of works the execution of which shall be required under clause 14 to be carried out by the Company shall be dealt with as follows:—

(*a*) All such works costing more than Rs. 1,000, shall be charged to the capital account of the Ahmedabad-Parantij Railway Company.

(*b*) Petty works, costing not more than Rs. 1,000 each, shall be charged to revenue and shall be met from the sum allowed to the Company for maintenance and working of the said railway as hereinafter provided.

Provided always, that if for any half year the aggregate expenditure on petty works thereon shall exceed Rs. 20 per mile open in any half year, such excess shall be charged to the capital account of the said railway, and shall be met by the Secretary of State.

17. No moneys that may be at any time supplied or provided by the Secretary of State under this Contract shall be deemed to be moneys supplied or provided in respect of the undertaking, nor shall they be entered in any of the accounts of the Company kept by them in respect of the undertaking.

Land.

18. Any land that may be under this Contract provided by the Secretary of State and handed over to the Company shall be held by the Company upon the like terms and conditions as are by the principal Contract prescribed in respect of land to be provided thereunder.

Accounts of Gross Earnings and their application.

19. The Company shall keep, in rupee currency in India, a distinct and separate account of the gross earnings derived from the working of the said railway, or of such part thereof as shall for the time being have been opened for public traffic. Such account shall be made up half-yearly to the 30th of June and the 31st of December in each year, and shall be regularly submitted by the Company to the Secretary of State, who may audit the same and correct any error which may be discovered therein. The Company shall also within two calendar months after each of the said half-yearly days render to the Secretary of State a summary of the said account for the half year ending on such half-yearly day.

20. The Company shall also keep in India all such subsidiary accounts and vouchers as shall be proper and sufficient for the preparation and verification of the account aforesaid, and the said accounts and vouchers shall be open at all reasonble times to inspection and transcription by any person or persons duly authorised by the Secretary of State in that behalf. The Company shall afford all proper and sufficient facilities for such inspection and transcription, and shall on the requirement of the Secretary of State (but at his expense) duly verify any such account, provided such requirement be notified in writing to the Company within three calendar months after the receipt by the Secretary of State of the summary aforesaid for any half year. If after such verification the Secretary of State shall require any alteration to be made in any such account, or in any summary to be so rendered by the Commpany as hereinbefore provided, and if the Company shall give notice to the Secretary of State that they object to such alteration being made, the matter thus being in difference between the Secretary of State and the Company shall be referred to arbitration under the provision for arbitration hereinafter contained.

21. Every summary of account with respect to which, or to the accounts on which it is based, no such written requirement of verification shall have been delivered to the Company within three calendar months after the receipt by the Secretary of State of the said summary, shall be deemed to be settled between and shall be binding upon the Secretary of State and the Company, except that if and whenever any error shall be subsequently discovered in any such summary of account, such error shall be rectified and allowed for in the account for the half year in which such error shall be discovered or for any subsequent half year.

22. The said gross earnings shall, at such times and in such manner as the Secretary of State may from time to time direct, be paid without deduction into such Treasury of the Government in India as the Secretary of State may approve. The Secretary of State shall, as soon as the accounts between him and the Company in respect of the said railway and works for any half year shall have been settled, pay over to the Company at Bombay to the credit of the undertaking a sum bearing the same proportion to such gross earnings for such half year as the aggregate of working expenses of the undertaking bear to the aggregate gross earnings of that railway for the same half year, less such sums, if any, as the Secretary of State shall be entitled to retain out of such gross receipts under clause 25, but such sum is not in any year to exceed 50 per cent. of the said gross earnings of the said railway for that year, and the said sum shall be accepted by the Company in full satisfaction and remuneration for the supply of rolling stock, plant, and machinery, other than fixed machinery, and the managing, working, and maintaining the said railway and works in accordance with the provisions of this Contract, and for the performance by the Company of every other obligation undertaken by them under this Contract with reference to the said railway and works.

23. The amount to be paid to the Company under clause 23 (less any sums retained by the Secretary of State under clause 25) shall be entered in the accounts kept by the Company under the provisions in that behalf contained in the principal contract.

Rebate.

24. The Secretary of State shall be entitled to retain, in respect of and at the end of each calendar year commencing at the close of the period during which interest shall be payable out of capital by the Ahmedabad-Parantij Railway Company, Limited, by way of rebate, such a sum not exceeding in any year 10 per cent. of the combined shares attributable to the Bombay, Baroda, and Central India Railway and the undertaking, of the gross earnings (carriage of stores being exlcuded) from traffic interchanged between the undertaking and the Bombay, Baroda and Central India Railway, or either of them, and the said railway, as shall, together with the net earnings of the Ahmedabad-Parantij Railway Company, Limited, for the said year to be retained by the Secretary of State, make up an amount equal to interest for the year at the

rate of 4 per cent per annum on the actual expenditure charged in the capital account of the said railway, and shall also allow the sum of Rs. 5,000 per annum towards the office expenses and the expenses of management of the Ahmedabad-Parantij Railway Company, Limited, and also all such legal expenses as may be properly incurred by the said last-mentioned Company and approved by the Secretary of State or the Government of India, and as are debitable to revenue. The payments under this clause shall be calculated at the close of each year, but payments on account and subject to adjustment may be made at the close of the first half of each year.

Other Accounts to be kept by Company.

25. The Company shall keep separate accounts of all moneys received by them from the Secretary of State or from the Ahmedabad-Parantij Railway Company under the provisions of this Contract, and of the expenditure by the Company of the said moneys, in such forms as the Secretary of State may from time to time prescribe, and such accounts shall be from time to time made up and submitted to the Secretary of State as he may require.

Termination of Contract.

26. This Contract shall terminate at the same time as the principal Contract.

27. If within 12 months from the date of this Contract a Company as proposed with power to construct the said railway shall not be registered as aforesaid, and a contract between such Company and the Secretary of State for the construction by such Company of the said railway and works be lawfully entered into, this Contract shall be void and of none effect.

As to Arbitration.

28. If the Secretary of State and the Company shall fail to agree touching any matter with respect to which their agreement is required by this Contract, or if in any case not herein specially provided for any dispute, question, or controversy shall at any time arise between the Secretary of State and the Company touching these presents or any clause or thing herein contained, or the construction hereof, or any matter connected with these presents or the operation hereof, or the rights, duties, or liabilities of either party in relation to the premises, then and in every such case the matter as to which the Secretary of State and the Company shall fail to agree, or the matter in difference, as the case may be, shall be referred to two arbitrators or their umpire, pursuant to and so as with regard to the mode and consequences of the reference, and in all other respects to conform to the law in force in British India for the time being relating to arbitration.

In witness whereof SIR CHARLES HAUKES TODD CROSTHWAITE, K.C.S.I., and SIR CHARLES ARTHUR TURNER, K.C.I.E., being two members of the Council of India, have hereunto set their hands and seals, and the Bombay, Baroda and Central India Railway Company have hereunto caused their common seal to be affixed, the day and year first above written.

Signed, sealed and delivered by the above-named two members of the Council of India in the presence of

W. H. TREASURE,
India Office,
Westminster,
Solicitor.

C. H. CROSTHWAITE. Seal.

CHARLES A. TURNER. Seal.

The common seal of the Bombay, Baroda and Central India Railway Company was hereunto affixed in the presence of

C. H. DICKENS, JULAND DANVERS, } Directors.
T. W. WOOD, Secretary.

Seal of the Bombay, Baroda and Central India Railway Company.

APPENDIX D.

Contract between Her Majesty's Secretary of State for India and the Tapti Valley Railway Company Limited, for the construction of the Tapti Valley Railway.

THIS INDENTURE, made the 28th day of August 1896, BETWEEN THE SECRETARY OF STATE IN COUNCIL OF INDIA of the one part, and THE TAPTI VALLEY RAILWAY COMPANY, LIMITED, of the other part.

WITNESSETH, and it is hereby agreed and declared as follows:—

Interpretation of Terms.

1. In this Contract—

The expression "the Secretary of State" means the Secretary of State in Council of India.

The expression "the Company" means the Company party to these presents.

The expression "the said railway" means and includes the railway mentioned in the third clause of this Contract, together with all the appurtenances thereof.

The expression "the working agency" means any State agency or other agency by which the said railway may for the time being be worked on behalf of the Secretary of State under the provision in that behalf hereinafter contained.

The expression "gross earnings" means and includes the gross earnings to be derived from the working of the said railway, and also the rents of any buildings belonging to the said railway and occupied by servants of the said railway or of the working agency which may be charged to the occupiers of such buildings under the rules in relation thereto for the time being in force on the railway of the working agency, and tolls on bridges, and other sources of income which are treated as revenue on Indian railways generally, but does not include book entries for the carriage of stores to be used in the maintenance or working of the said railway, or for services rendered and work done in relation thereto respectively, and for which no cash payment is made, nor any sum allowed by way of rebate under clause 28 hereof.

The expression "net earnings" and "net receipts" have the meanings attributed to them respectively in clauses 27 and 28 hereof.

The expression "months" means calendar months.

Duration of Contract.

2. This contract shall continue in force until it shall be determined under any provision hereinafter contained in that behalf.

Construction of Railway.

3. The Company shall, in the manner hereinafter provided, supply to the Secretary of State the funds required to enable him to construct, complete, and make ready and fit for opening for public traffic throughout, on a route to be selected and determined by the Secretary of State, a railway from outside the eastern fence of the Bombay, Baroda, and Central India Railway Station at Surat to Nandurbár, and extending thence to Amalner, with all such stations, station-yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, fixed machinery, tools and plant, office furniture and equipment, conveniences, and works as shall be necessary or proper for the purposes of the said railway, either as regards the due working of the same, or as regards the permanence of the same, and the protection of the same from destruction or injury by inundation, tempest, or otherwise.

4. The Secretary of State shall from time to time provide free of cost to the Company the land in British territory which he shall consider requisite for the construction of the said railway and for the stations, station-yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, conveniences, and works necessary or proper for the purposes of the said railway, as well as for quarrying, ballast, brickfields, and kindred purposes, and shall allow the Company, or the working agency for the time being, to have possession during the continuance of this Contract of the land so provided. The Company shall from time to time, with the sanction of the Secretary of State as soon as practicable, relinquish to the Secretary of State such of the land of which the Company shall have been allowed possession under this Contract as shall for the time being have become unnecessary to be retained by the Company for any of the purposes of this Contract. And as often as in the opinion of the Secretary of State it shall appear to be unnecessary that the Company shall retain possession of any particular land of which the Company shall have been allowed possession under this Contract, the Secretary of State shall certify such his opinion to the Company. Upon receipt of such certificate, or so soon thereafter as may be, the Company shall state in writing whether it acquiesces in the opinion of the Secretary of State or whether it objects thereto, and if so the grounds of its objection. If no

objection is stated by the Company, or if the grounds of its objection (if any) are not in the opinion of the Secretary of State sufficient, the Company shall, upon the requisition of the Secretary of State, forthwith relinquish to him the land in question.

5. The Secretary of State will use his influence to acquire for the Company from any Native State, through whose territories the said railway shall be carried, similar grants of land in their respective territories which the Secretary of State shall consider necessary or proper for the purposes of the said railway or any extension therof; and the provisions of the preceding clause shall as far as possible extend to any land so granted.

6. The said railway shall be a single line of the standard gauge, and shall, as regards permanent way, station accommodation, and general structural character, be equal in all respects to the standard of the Bombay, Baroda, and Central India Railway (except that 70 lbs. flat-footed rails and creosoted pine sleepers may be used), so that it may be worked by the rolling stock in use on that railway, and so that it shall not require special or undue maintenance. Surveys, designs, specifications, and estimates in relation to the construction or execution of the said railway and stations and other works shall, so far as the same shall be required by the Secretary of State, be furnished by the Company to the Secretary of State and shall be subject to his approval.

Provided always, that the Company shall have free access to all surveys, plans, estimates, or information prepared or obtained by the Secretary of State for facilitating the construction of the said railway, but the Secretary of State will accept no responsibility for the accuracy of any such surveys, plans, estimates, or information.

7. For the more convement and economical construction of the said railway, the execution thereof will be undertaken by the Secretary of State, through such agency as he shall appoint, but at the entire cost and risk of the Company, and so that under no circumstances shall any charge be placed on him by reason of this arrangement, directly or indirectly. The works shall be carried out in accordance with designs and specifications to be approved by the Secretary of State, and under the inspection and supervision of engineers to be appointed or approved by him for that purpose in India. The Company shall forthwith from time to time, and as required by the Secretary of State, supply him in India, under clause 29 hereof, with the funds necessary for carrying out the works, as well for the cost of materials and labour, as for such remuneration (if any) as the Secretary of State may sanction to the officers and servants of the agency exclusively employed in or about the said construction, and other charges of whatever description.

To meet the expense of general supervision, an amount equal to 2½ per cent. on the total capital outlay incurred in India, exclusive only of such general supervision, on the construction of the said railway and works shall be paid by the Company to the Secretary of State. The Company shall also pay to the Secretary of State a commission of 2 per cent. on all stores purchased for the said railway and works in England and on all other disbursements in England, including freight and other shipping charges, by the Secretary of State or the working agency; but if the arrangements for shipping stores purchased in England shall be entrusted to any agency other than the working agency, by arrangement with the Secretary of State or the working agency, the Secretary of State or the working agency shall pay to such other agency the balance of such commission which shall remain after deducting actual disbursements made in connection with the preparation of specifications for and the supply, inspection, and approval of such stores.

8. All the expenditure by the Secretary of State on account of the construction of the said railway, or in connection therewith, as approved and sanctioned by the Secretary of State and certified under his authority, shall be accepted by the Company as conclusive, and shall not be liable to question in any particular.

9. The Company shall from time to time furnish the Secretary of State with full particulars of all expenditure incurred by them on account of the said railway under this Contract, and any other information that he may require in respect of transactions relating to the said railway.

10. The Secretary of State shall from time to time furnish or cause to be furnished to the Company statements of the sums required from time to time by him or the working agency, and also complete accounts of the expenditure for the construction of the said railway incurred by him on behalf of the Company, together with suitable reports as to the progress and condition of the works.

11. The works, buildings, sidings, and conveniences from time to time required within the boundaries of the Bombay, Baroda and Central India Railway for the purpose of effecting a junction between the said railway and the Bombay, Baroda and Central India Railway at Surat Station, as approved by the Secretary of State, shall be provided by or under the direction of the Secretary of State and free of cost to the Company. No charge or toll shall be made or levied upon or from the said railway or any persons or company working the same in respect of the use of the land, lines, platforms, buildings, or other conveniences at the said station in excess of the sum to be retained from the gross earnings of the said railway under clause 27 of these presents.

12. The Secretary of State shall from time to time notify to the Company the route of the said railway so far as such route shall from time to time have been determined by him.

13. The Secretary of State shall have power to determine the situation and dimensions of all stations, station-yards, offices, warehouses, houses for employés, conveniences, and works to be constructed in connection with or as part of the said railway.

14. The Secretary of State will make such arrangements with the railway administrations concerned that the rates to be charged to the Company or the Secretary of State for the carriage over the Bombay, Baroda and Central India Railway, and over the Rajputána-Malwa Railway, of all materials, plant, and stores required for the construction of the said railway and the works connected therewith, shall be the same as are charged on those lines respectively for materials, plant and stores used for similar purposes on those railways.

15. The Secretary of State will provide and maintain such a force of police as, with the approval of the Secretary of State, shall from time to time be required for the protection of so much of the said railway as shall for the time being be under construction. The cost of providing and maintaining such police shall be taken to be as from time to time stated by the Secretary of State, and shall be paid from time to time from the capital funds of the Company to the Secretary of State on demand.

16. The Secretary of State may from time to time construct at his own cost such electric telegraph and telegraphic appliances as he shall think fit along or upon the said railway, or any part or parts thereof, or any land or works belonging thereto, and may maintain and work the same electric telegraphs and telegraphic appliances as he shall think fit, and may erect, maintain, make, do and execute on the said railway, or on any lands or works belonging thereto, all such buildings, machinery, works, acts and things as he shall consider necessary or proper in relation to the construction, maintenance, use and working of the said electric telegraphs and telegraphic appliances. The Secretary of State shall be exclusively entitled to the possession of all buildings, machinery, works, and appliances erected or brought by him under the powers conferred on him by this clause on the said railway, or on any land or works belonging thereto.

Opening of the Railway.

17. From time to time, when and so often as an Inspecting Officer acting on behalf of the Secretary of State shall have certified that the whole or any part of the said railway has been constructed in accordance with the provisions herein contained, and is ready and fit for the conveyance of passengers and goods, there shall be prepared by some person duly empowered by the Company in that behalf, and at the expense of the Company, a specification of such whole or part as aforesaid of the said railway, describing the nature and quality of the works, and setting out fully the general details of the construction of the same as regards earthworks bridges, ballast, permanent way, stations, buildings and all other matters and things of a permanent character, so as to show in every particular the standard up to which the works have been constructed, together with plans and working drawings of the same; and also an account showing the amount of capital moneys expended thereon. Such specification, plans, working drawings and account, hereinafter called documents, when approved by the Secretary of State shall be signed by the Consulting Engineer of the Government of India or other officer or officers duly authorised in that behalf to act on behalf of the Secretary of State, and by the Agent of the Company or other officer duly empowered to act on behalf of the Company, and shall be retained by the Secretary of State. The said specification, plans, and account shall from time to time be revised and completed up to date as occasion shall require.

18. As soon as may be after the said documents have been so approved and signed as aforesaid, such part of the said railway as the said specification, plans and account respectively refer to shall be opened for public traffic, and may be worked in the manner hereinafter mentioned.

Maintenance and Working.

19. The Secretary of State shall thenceforth, until the determination of this Contract, work and maintain the said railway or such part thereof as shall for the time being have been so opened, and shall provide and maintain all necessary rolling stock through State agency or through another agency to be selected by him in that behalf, on the terms and subject to the provisions hereinafter expressed.

20. The Secretary of State shall have full power to enter into any contract or agreement with any working agency for the working, maintenance and management of the said railway during the period aforesaid or during any part thereof, or may carry out the same through State agency. Any such contract or agreement may be to the purport and effect of the contract or agreement set forth in the schedule hereto, with such additions, variations or modifications (if any), subject always to the provisions of these presents, as the Secretary of State shall from time to time deem to be necessary or desirable. If and so long as the Secretary of State shall work the said railway or any part thereof through State agency the provisions set forth in the said contract, so far as applicable and as the circumstances of the case will permit, and with such additions, variations, and modifications, subject as aforesaid, as the Secretary of State shall deem to be necessary or desirable, shall be observed by the State agency.

21. All the business connected with the management and maintenance of the said railway and conducting the traffic thereon, including police and telegraphs and telegraphic appliances, shall in all respects, as far as practicable, be carried on in the same manner and subject to the same regulations and control by the Secretary of State as the like business on the Bombay, Baroda and Central India Railway, and the Company shall not interfere or be concerned with such business.

22. The rates and fares for the carriage of goods and passengers over the said railway or any portion thereof, shall be such as may from time to time be arranged between the Secretary of State and the working agency, and the classification of goods thereon shall be in conformity

with that from time to time in force on the Bombay, Baroda and Central India Railway; provided that the rates, fares, and terminals, if any, shall be within the maximum and minimum rates, fares, and terminals, if any, for the time being in force on the Bombay, Baroda and Central India Railway.

23 If the Company shall, with the approval of the Secretary of State, provide on any of the bridges, forming part of the said railway, roadways for foot-passengers, cattle, or carts or other vehicles, the working agency shall be at liberty to charge tolls on the traffic over such roadways according to tariffs to be settled by the Secretary of State.

24. The Company shall, during such time as the said railway or any part thereof shall be worked by the Secretary of State or through any such agency as aforesaid, be liable to provide funds for making good all damage to the said railway and works which shall be due to extraordinary casualty affecting the same, of such a nature that, in accordance with the customary practice on Indian railways, the cost of making good such damage would be made a charge against capital. Provided that if in any case the Secretary of State and the Company shall not agree as to the liability of the Company under this clause, the Secretary of State will cause the matter in question to be referred to arbitration in accordance with clause 55 hereof, and so far as it shall be decided on such arbitration that any charge should be excluded from working expenses it shall be borne by the Company and be charged to the capital account of the said railway, and such decision shall be binding on the Company.

Alterations, Improvements and Additions.

25. The Secretary of State may from time to time give notice in writing to the Company, and to the working agency on behalf of the Company, of any reasonable alteration, improvement, or addition which may, in his opinion, be required to be made in or to any part of the said railway or any of the stations or works belonging thereto, either for the protection and security of the works and stations, the safety of passengers or of the public, or for meeting the development of traffic on or for the effectual working of the said railway or otherwise, and which is estimated to cost more than Rs. 1,000. Such notice shall specify the alteration, improvement, or addition required, and shall also in general terms describe the works to be executed for the purpose of effecting the same, and state approximately what such works are expected to cost. The Secretary of State shall provide, free of cost to the Company, any land that may be requisite for the purpose of the said works. Any land provided under the provisions of this clause shall, as between the Secretary of State and the Company, be subject as nearly as may be to the stipulations and provisions to which it would have been subject under this Contract if it had been land provided by the Secretary of State for the original construction of the said railway, or of works necessary or proper for the purposes thereof, and the said works when executed shall be deemed to be works belonging to the said railway, and the Company and the Secretary of State shall, subject to the provisions hereinafter contained, respectively be in the like relative positions in respect to the approval of the designs and construction of such works and the supply of funds to the Secretary of State as required by him for such construction as they respectively would have been in if the said works had been part of the original works belonging to the said railway. If on receiving any notice under this clause the Company shall fail or neglect to supply under clause 29 thereof the funds as required for any such works for which under this clause they are liable to make provision, the Secretary of State shall be at liberty by himself or through the working agency to provide all or any of the moneys required for the said works, and to expend the same in the execution of such works, and the Company shall from time to time on demand pay to the Secretary of State, or into such Government Treasury in India as he shall from time to time appoint for the purpose, a sum equal to the amount which the Secretary of State shall from to time have expended in manner aforesaid as stated by him. Provided always, that in case the Company shall object to the reasonableness of any work, estimated to cost more than Rs. 10,000, required by the Secretary of State to be done under the provisions of this clause for meeting the development of traffic, or for any reason other than the safety of passengers or of the public, or the effectual working of the railway in the manner above provided, and the Secretary of State shall not withdraw his notice to do the work, the matter in difference shall be referred to arbitration under the proviso for arbitration hereinafter contained, and the Company shall not be bound to provide the funds therefor until an award on such reference is made upholding the reasonableness of the requirement of the Secretary of State. The cost of such reference shall be borne in such manner as the arbitrators shall award, and if and so far as such cost shall be directed to be borne by the Company, the same shall be a charge against the capital of the Company.

26. The cost of works the execution of which shall be carried out by the working agency on behalf of the Company shall be dealt with as follows:—

(*a*) All such works costing more than Rs. 1,000 in respect of which notice shall have been given under clause 25 hereof, shall be charged to the capital account of the Company.

(*b*) Petty works costing not more than Rs. 1,000 each shall be charged to revenue, and shall be met from the sum allowed to the working agency for the maintenance and working of the said railway. Provided always, that if for any half-year the aggregate expenditure on petty works thereon shall exceed 20 rupees per mile open, such excess shall be charged to the capital account of the said railway, and shall be met by the Company.

Application of Gross Earnings.

27. Out of the gross earnings to be derived from working the said railway, or any part thereof, the Secretary of state shall in each half-year retain such a percentage as is in the 23rd clause of the contract or agreement set forth in the schedule hereto provided to be paid over to the working agency therein referred to; or (if such contract shall not be entered into or shall be determined before the expiration or determination of this Contract), such a percentage as may be provided in any other contract or agreement which may be entered into under the 20th section of this Contract; or (if the said railway shall be worked and maintained through State agency) such a percentage as the Secretary of State shall consider just or reasonable, but such percentage is not in any case to exceed for any half-year such a percentage of the gross earnings for that half-year as shall be equivalent to the percentage of the working expenses in relation to gross earnings of the Bombay, Baroda and Central India Railway (including any standard gauge branches thereof), for the same half-year, and is not to exceed in any year 50 per cent. of the gross earnings of the said railway for the same year; which percentage so retained shall be in full satisfaction and remuneration for the use of all necessary rolling stock and machinery (other than fixed machinery), and for working, managing, and fully and efficiently maintaining, renewing, and upholding the said railway and railway stations, station-yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, fixed machinery, tools and plant, office furniture and equipment, conveniences, and works, and the remainder of such gross earnings for each half-year shall be the net earnings of the Company for the said half-year, and shall be paid by the Secretary of State to the Company, less any sum which may have been advanced by the Secretary of State in anticipation of the declaration of a dividend and on account thereof.

Provided always, that the Secretary of State shall be at liberty to apply any moneys payable to the Company under this clause to any of the purposes for which the Company are under this Contract bound to provide the funds, in case there shall be no capital money in the Government Treasury at the time available, and also to deduct from any such moneys all moneys (if any) which shall for the time being be owing to the Secretary of State by the Company under this Contract, and which the Company ought to have paid but shall have failed to pay into any Government Treasury in India. All moneys so retained and applied or deducted to be afterwards recouped to the Company out of capital as soon as the same can be raised.

Rebate.

28. The Secretary of State shall allow to the Company, in respect of and at the end of each calendar year commencing at the close of the period during which interest shall be payable out of capital under clause 34 hereof, by way of rebate, such a sum not exceeding in any year 10 per cent, of the combined shares attributable to the Bombay, Baroda, and Central India Railway and the Rajputana-Malwa Railway, of the gross earnings from traffic, except stores, interchanged between the said last-mentioned railways, or either of them, and the said railway, as shall, together with the net earnings of the Company for the said year, make up an amount equal to interest for the year at a rate of 4 per cent, per annum on the actual expenditure charged in the capital account, and shall also allow the sum of Rs. 6,000 for each year for or towards the office expenses and the expenses of management of the Company, and shall also pay all such legal expenses as may be properly incurred by the Company and approved by the Secretary of State or the Government of India and as are debitable to revenue. The payments under this clause shall be calculated at the close of each year, but payments on account and subject to adjustment may be made at the close of the first half of each year. The Company's net earnings for each year, together with such rebate as aforesaid for such year, and the said annual sum of Rs. 6,000 and the other moneys payable to the Company under this clause, shall constitute the Company's net receipts for such year.

Provided always, that as regards traffic interchanged between the Rajputana-Malwa Railway and the said railway, the allowance by way of rebate on such traffic above provided for shall continue only so long as the existing contract for the working of the Rajputana-Malwa Railway by the Bombay, Baroda, and Central India Railway shall continue in force.

Capital Expenditure.

29. The Company shall, within such period and by such instalments as the Secretary of State shall prescribe, pay into such Treasury in India as the Secretary of State shall prescribe an aggregate sum of 130 lakhs of rupees, or such less sum as the Secretary of State shall think sufficient deducting therefrom the amount payable to the promoters for their commission and legal and other expenses, and also all other expenses referred to in clause 33 to be raised in shares or stock, or by the issue of debentures or debenture stock as the original capital of the Company. The aggregate of the amounts payable respectively on application and allotment of the aforesaid sum of 130 lakhs of rupees, or such less sum as aforesaid, shall be at the rate of Rs. 50 per share of Rs 500 and shall constitute the first of the said instalments.

30. All moneys which the agency to be appointed by the Secretary of State for the construction of the said railway or the Company shall, to the satisfaction of the Secretary of State, require to defray expenditure on behalf of the Company under this Contract, not exceeding in the aggregate the amount paid to the Secretary of State under clause 29, shall be supplied to the said agency or the Company by the Secretary of State in India, according to such arrangements as shall from time to time be made between the Secretary of State and the said agency.

31. Whenever the expenditure on account of the said railway, properly chargeable to capital, shall exceed the said sum of 130 lakhs of rupees, and further moneys shall be required for the like expenditure, the Secretary of State may require the Company to raise such additional amount as shall be deemed by him necessary for that purpose as well as for the construction of such additional works as may be required under the provisions of clause 25 of this Contract.

32. Except as herein provided, no capital expenditure by the Company shall be allowed as between the Secretary of State and the Company unless the prior sanction of the Secretary of State shall have been obtained thereto.

33. The Company shall pay, as the Secretary of State shall require, such amount as shall be approved by the Secretary of State on account of the cost of all preliminary surveys and estimates, and other expenses undertaken on behalf of the Company for the purposes of the said railway, before the date of the opening of the same for traffic throughout, inclusive of the cost of and incidental to the formation and registration of the Company, and may charge the same as capital expenditure of the said railway.

34. The Company (so far as authorised so to do by its constitution, and subject to the law for the time being in force in British India) may during a period which shall extend to the close of the half-year next after the half-year during which the side railway shall be actually completed and opened for traffic, pay out of capital any sums by way of interest on the amounts from time to time *bonâ fide* paid up on the issued share capital of the Company, not amounting, together with the net receipts of the Company for the period in respect of which such interest is paid, to more than 4 per cent. per annum on the sums in respect of which the interest is paid; and may also during the period aforesaid pay out of capitl the snm of Rs. 10,000 per annum towards the office expenses and expenses of management of the Company. The moneys paid out of capital under this clause may be charged to capital account as part of the original cost of construction.

Restriction on raising of new Capital.

35. The Company shall not, during the continuance of this Contract, without the sanction in writing of the Secretary of State and of the working agency respectively, first obtained, at any time increase its share or stock capital, or borrow any moneys; but this stipulation shall not necessitate the sanction of the Secretary of State or of the working agency to the borrowing of money by the Company at a reasonable rate of interest for *bonâ fide* temporary purposes.

Accounts.

36. The Secretary of State shall keep or require to be kept in rupee currency in India a distinct and separate account of the gross earnings derived by him or by the working agency from the working of the said railway, or of such part or parts thereof as shall for the time being be open for public traffic. Such account shall be made up half-yearly to the 30th day of June and the 31st day of December in each year, and a summary thereof shall be rendered to the Company in India. The Secretary of State shall also within a reasonable time furnish to the Company a return of the approximate gross earnings for each week.

37. The Secretary of State shall keep or cause to be kept in India all such subsidiary accounts and vouchers as shall be proper and sufficient for the preparation and verification of the account aforesaid: and the said accounts and vouchers shall be open at all reasonable times to inspection and transcription by some person or persons to be authorised by the Company in that behalf and approved by the Secretary of State and at the expense of tho Comyany. The Secretary of State shall afford or cause to be afforded to such person or persons all proper and sufficient facilities for such inspection and transcription, and shall on the reasonable requirement of the Company and at the expense of the Company (provided such requirement be notified in writing to the Secretary of State within 30 days after the receipt by the Company of the summary aforesaid for any half-year) duly verify or cause to be verified the accounts for such half-year. If after such verification the Company shall require any alteration to be made in any such accounts or summary, and if the Secretary of State shall not consent to the proposed alteration, the matter in difference shall be referred to arbitration under the proviso for arbitration hereinafter contained.

38. Every summary of account with respect to which, or to the accounts on which it is based, no such written requirement of verification as aforesaid shall have been delivered to the Secretary of State within the 30 days after the receipt by the Company of the said summary aforesaid, shall be deemed to be conclusively settled between and shall be binding upon the parties, except that if and whenever any error shall be discovered in any such summary or account, such error shall be rectified and allowed for in the account for the half-year in which the error shall be discovered or for any subsequent half-year.

39. The Secretary of State shall keep or cause to be kept an account between the Secretary of State and the Company in rupee currency, in which from time to time shall be entered—

(*a*) *To the Credit of the Company*, all sums paid by the Company to the Secretary of State under clause 29 hereof, and all receipts of the Secretary of State arising from the sale of stores or other property origiually paid for from capital or otherwise properly attributable to capital in accordance with the usage of Indian railways or this Contract.

(*b*) *To the Debit of the Company*, all expenditure incurred by the Secretary of State properly chargeable to capital under the provisions herein contained, and all sums becoming payable to the Secretary of State under the said provisions and from time to time remaining unpaid.

And if at the end of any half-year there shall be a balance to the debit of the Company on the said account, and such balance be not paid to the Secretary of State on or within a month after his demand, the Company shall pay to the Secretary of State interest on the amount of remaining unpaid at the rate of 6 per cent. per annum from the date of balancing such half-yearly account, and the Secretary of State may deduct all such interest from any sums becoming payable to the Company under the provisions of this Contract.

40. The Secretary of State shall keep or cause to be kept as between the Secretary of State and the Company, in rupee currency, an account of the expenditure and receipts in reference to the said railway, attributable to capital (hereinafter referred to as "the Capital Account"), in which shall from time to time be entered:—

To the Debit of the Account.—(*a*) All such expenditure of the Secretary of State or of the agency to be appointed by him as aforesaid on account of the said railway as stated by the Secretary of State as shall be chargeable to capital.

(*b*) All such expenditure on the said account, including payment of interest on capital under clause 34, sums paid for office expenses and expenses of management of the Company, and other sums properly chargeable to capital under the provisions of this Contract, as shall have been respectively approved by the Secretary of State.

To the Credit of the Account.—All sums received by the Secretary of State from the sale of stores or other property originally paid for from capital or otherwise properly attributable to capital in accordance with the usage of Indian Railways or this Contract, which sums have been entered in the account described in clause 39.

41. In connection with the said Capital Account there shall be kept by the Secretary of State or the working agency all such subsidiary accounts in the form required by the Secretary of State as are from time to time kept by the Indian railway companies working railways under the supervision of the Secretary of State.

42. In any case where any question may or might arise as to whether any expenditure in connection with the said railway is to be treated in the whole or in part as a charge on capital or how the same is to be dealt with, the question shall be determined on the general principle that capital, besides bearing the cost of the original construction and completion of the said railway and the stations, station-yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, fixed machinery, conveniences, and works belonging thereto, and of the original equipment of the said railway and its appurtenances with plant and fixed machinery, is to bear the cost of new works, of additional plant and fixed machinery, and of substantial improvements of and additions to old works, plant, and fixed machinery provided in pursuance of any requirement by the Secretary of State under the 25th clause of this Contract, and not being petty works within the meaning of the 26th clause of this Contract, and shall be debited with all moneys expended by way of making good any damages pursuant to the 24th clause of this Contract, and that the cost of repairs, restorations, renewals, and replacements, and of petty works within the meaning of the 26th clause of this Contract, is to be met by the working agency.

Audit.

43. The account of the Company in relation to its expenditure and receipts, and of the expenditure of the Secretary of State or of the agency to be appointed by him as aforesaid on account of the Company, whether in India, England, and elsewhere, on capital account, shall from time to time be audited on behalf of the Secretary of State (if he shall so require) as well as on behalf of the Company, and the Company shall produce to the auditors or auditor all vouchers, books, accounts, papers, and documents of the Company necessary for the purpose of audit, and afford to them or him all facilities requisite for the performance of their or his duties. Any correction made in the accounts by any person or persons who shall be acting as joint auditors or joint auditor on behalf both of the Company and of the Secretary of State shall be conclusive. If, consequent on the audit of any auditor acting exclusively on behalf of the Secretary of State, the Secretary of State shall require alterations to be made in the accounts, and the Company shall object to the alterations, the matter in difference shall be referred to arbitration under the proviso for arbitration hereinafter contained. The necessary costs of the audit (other than the costs of such arbitration), and such of the costs of such arbitration as the arbitrators shall direct to be borne by the Company, shall be defrayed by the Company, and included in the Capital Account.

Miscellaneous.

44. In any case not herein expressly provided for, the Company shall indemnify the Secretary of State against any pecuniary liability which he may incur in respect of the construction, extension, or improvement of the said railway, or the maintenance or working thereof,

under the contract or agreement set forth in the schedule hereto, or any other contract or agreement which may be entered into under the 20th clause of this Contract.

45. The Company shall not at any time during the continuance of this Contract, without the sanction in writing of the Secretary of State first obtained, engage in, or carry on, or apply capital to any business other than the business provided by this Contract to be carried on by the Company, and business incidental or subsidiary thereto, or participate or co-operate with any person, company, or corporation in carrying on any business other than as aforesaid.

46. The Secretary of State shall promote the passing by the Legislature in India of any Act or Acts which may be required to enable the Company to carry into effect this Contract.

47. No claim shall be made upon the Secretary of State by the Company for compensation in respect of the prejudicial effect upon the said railway, or the profits of the said railway, of any Act of the Indian Legislature of general applicability for the time being in force, and the Company and its undertaking shall be subject to the provisions of every such Act as last aforesaid.

48. Any notice, determination, decision, direction, requirement, requisition, demand, appointment, certificate, expression of opinion, approval or sanction to be given or signified on the part of the Secretary of State for any of the purposes of or in relation to this Contract, or any of the powers or provisions herein contained, shall be sufficient and binding if in writing signed by the Secretary of State, or one of his Under Secretaries, or by a Secretary of the Government of India or by any other officer or servant authorised to act on behalf of the Secretary of State in respect of the matters to which the same shall relate, and the Secretary of State shall not in any case be bound in respect of any of the matters aforesaid unless by some writing signed in the manner before mentioned in this clause.

49. The registered office of the Company shall at all times during the continuance of this Contract be situate in Bombay.

Determination of Contract and matters consequent thereon.

50. The Secretary of State may determine this Contract in manner hereinafter mentioned (that is to say):—

1. If before the said railway is open for traffic throughout the Company shall fail, on demand by the Secretary of State, to supply him with the funds required to enable him to construct and complete the said railway as hereinbefore agreed, the Secretary of State, notwithstanding any grants of further time, or any negotiations between the Secretary of State and the Company, may determine this Contract by giving to the Company notice in writing of such determination (which notice is herein referred to as notice of determination).

2. The Secretary of State may by giving to the Company not less than 12 month's previous notice in writing (which notice is herein referred to as "notice of purchase") determine this Contract (if then subsisting) either on the 31st day of December 1921, or on the 31st day of December in the last year of any subsequent period of 10 years, or on the 31st day of December 1950.

AND IT IS HEREBY AGREED AND DECLARED that at the time at which this Contract shall terminate, as hereinbefore provided, the Company without acquiring or having the right to any compensation or payment from the Secretary of State in respect thereof, except as hereinafter specially provided, shall relinquish and give up to the Secretary of State, or to any native State, as the case may be, possession of all land of which they respectively shall have allowed the Company to have possession under or for any of the purposes of this Contract (so far as not then already restored to the Secretary of State or such native State), together with all the stations, station-yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, fixed machinery, conveniences, works, bridges, rails, fixtures, and plant then erected or being on the land to be relinquished and given up under this clause or in anywise belonging to the said railway or any part thereof, and the then existing stock (if any) of stores belonging to the Company and appropriated, whether for the purposes of construction or otherwise, to the said railway or to any of the adjuncts thereof or to any part of the equipment thereof, and shall also deliver to the Secretary of State all plans, books, surveys, sections, printings, writings, and documents whatsoever in anywise connected with, or with the construction of the said railway or any part thereof, or any of the works or adjuncts thereof inclusive as aforesaid. All the particulars mentioned in this clause shall at the time when the Secretary of State shall under this clause become entitled to the delivery thereof, so far as not then already belonging to him, become his absolute property, free both as between the Secretary of State and the Company, and as between the Secretary of State and the incumbrancers (if any), from all incumbrances whatsoever created by the Company, it being the intention of the parties hereto that the Secretary of State shall not be affected by any charge or incumbrance of any kind created by the Company on any moveable or immoveable property which during the continuance of this Contract shall be in the possession of the Company, whether belonging to the Secretary of State or to the Company. The rights of either party to this contract as against the other party hereto in respect

of the previous breach of any coverant herein contained shall continue to subsist notwithstanding the termination of this Contract in any manner whatsoever, and such termination shall not affect the right of either party hereto to require the payment of any unpaid money which under the provisions of this Contract shall have become actually payable to or on behalf of such party by the other party hereto.

51. If this Contract shall be determined by notice of purchase, the Secretary of State shall within four calendar months from the time at which this Contract shall, except as hereinafter provided, so be determined, pay to the Company in India out of the revenues of India in rupee currency the following sums: that is to say (i), if the Contract shall be determined by notice of purchase on the 31st day of December 1921, or at the expiration of any subsequent period of 10 years, a sum of money equal to 25 times the amount of the average yearly net earnings derived by the Company from the said railway during the five years immediately preceding the time at which this Contract shall be determined, but so that the total amount so payable to the Company shall not in any case exceed by more than 20 per cent. the total capital expenditure of the Company as appearing on the Capital Account of the Company, or be less than such total capital expenditure. And (ii.) if this Contract shall be determined by notice of purchase on the 31st day of December 1950, then the total amount of such Capital expenditure as aforesaid.

52. If this Contract shall be determined by notice of determination, the Secretary of State shall, except as hereinafter provided, within four calendar months from the time of such determination pay to the Company in India out of the revenues of India, in rupee currency, the fair value of the said railway and works, so far as the same shall then have been constructed, and of all rails, fastenings, sleepers, fixed machinery, plant, and stores which shall be relinquished, given up or delivered by the Company to the Secretary of State under the 50th clause of this Contract. The fair value of property for the purposes of this clause shall, in case of difference between the Secretary of State and the Company, be ascertained by arbitration under the proviso for arbitration in that behalf hereinafter contained, and shall be calculated without reference to expectations of future profits to be derived from working the said railway.

53. The Secretary of State shall, after making due allowance for any sum remaining in his hands unexpended from the moneys supplied to him by the Company or received by him on their account, be at liberty to deduct any amount that may be owing by the Company to him at the time when this Contract shall terminate from any moneys which but for this proviso would be payable by him to the Company under the provisions of clause 51 or clause 52.

54. The clear balance of money payable by the Secretary of State to the Company under the 51st or 52nd clause of this Coutract shall carry interest in favour of the Company at the rate of 3 per cent. per annum, to be computed from the time when this Contract shall terminate down to the time of payment or tender of such clear balance by or on behalf of the Secretary of State to the Company. And the Secretary of State shall pay to the Company in India out of the revenues of India any interest accrued under this clause in favour of the Company with the capital money in respect of which the interest shall have become payable.

Arbitration.

55. If any dispute, question, or controversy shall at any time arise between the Secretary of State and the Company touching this Contract, or any clause or thing herein contained, or the construction hereof, or any matter connected with this Contract, or the operation of the same, or the rights, duties, or liabilities of either party in relation to the premises, then and in every such case the matter in difference shall be referred to two arbitrators or their umpire pursuant to and so as with regard to the mode and consequences of the reference, and in all other respects to conform to the law in force in British India for the time being relating to arbitration.

In witness whereof LIEUTENANT-COLONEL H. O. SELBY, R.E., one of the Secretaries to the Government of Bombay, on behalf of the Secretary of State in Council of India, by the order of the Governor in Council of Bombay, has hereunto set his hand and seal, and the Tápti Valley Railway Company, Limited, have hereunto caused their common seal to be affixed, the day and year first above written.

Signed, sealed and delivered by the said LIEUTENANT-COLONEL H. O. SELBY, R.E., in the presence of

JOHN WILLCOCKS,
Acting Under Secretary to the Government of Bombay.

} HENRY OLIPHANT SELBY.

The common seal of the Tápti Valley Railway Company, Limited, was hereunto affixed in the presence of

RAHIMTULA MOHAMED SAYANI,
NARANDAS PURSHOTAMDAS,
Two of the Directors of the Tápti Valley Railway Company, Limited.

KILLICK, NIXON and Co.,
Agents.

APPENDIX E.

Contract between Her Majesty's Secretary of State for India and the Bombay, Baroda and Central India Railway Company in connection with the construction and working of the Tapti Valley Railway.

THIS INDENTURE made the 30th day of October 1896, BETWEEN THE SECRETARY OF STATE IN COUNCIL FOR INDIA (hereinafter called "the Secretary of State") of the one part, and THE BOMBAY, BARODA AND CENTRAL INDIA RAILWAY COMPANY (hereinafter called "the Company") of the other part.

WHEREAS by an Indenture dated the 24th day of September 1884, and made between the Secretary of State of the one part and the Company of the other part (which Indenture is hereinafter referred to as the principal Contract), the Company contracted for the maintenance, management, use, and working by the Company of the Rajputana-Malwa Railway.

AND WHEREAS the Secretary of State has entered into a Contract, dated the 28th day of August 1896, with the Tapti Valley Railway Company, Limited, with the object (among other things) of constructing, on a route to be determined by the Secretary of State, a railway from outside the eastern fence of the Bombay, Baroda and Central India Railway Station at Surat to Nandurbar, and extending thence to Amalner, with stations, station-yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, fixed machinery, tools and plant, office furniture and equipment, conveniences, and works (all which proposed railway, stations, station-yards, sidings, crossing-places, bridges, viaducts, offices, warehouses, houses for employés, fixed machinery, tools and plant, office furniture and equipment, conveniences, and works are hereinafter meant by and included in the expression "the said railway").

AND WHEREAS one of the terms of the said Contract is that the Secretary of State shall maintain and work the said railway as and when completed, either through State agency or through some other agency to be selected by him, and that he shall have full power to enter into this present Contract for the working, maintenance, and management of the said railway.

AND WHEREAS the Company have agreed to work, maintain, and manage the said railway upon the terms and conditions hereinafter contained.

NOW THIS INDENTURE WITNESSETH :—

Interpretation of terms.

1. The definitions of "the Secretary of State," "the Company," and "the Bombay and Baroda Railway" in the principal Contract contained shall apply to this Contract.

The expression "the Rajputana-Malwa Railway" means and includes the Rajputana-Malwa Railway as defined by "the undertaking" in the principal Contract.

The expression "gross earnings" means and includes the gross earnings to be derived from the working of the said railway, and also the rents of any buildings belonging to the said railway and occupied by servants of the Company which may be charged to the occupiers of such buildings under the rules in relation thereto for the time being in force on the undertaking, and tolls on bridges and other sources of income which are treated as revenue on Indian railways generally, but does not include book entries for the carriage of stores to be used in the maintenance or working of the said railway, or for services rendered and work done in relation thereto respectively, and for which no cash payment is made, nor any sum allowed by way of rebate under clause 25 hereof.

The expression "months" means calendar months.

Surat Station and Junction thereat.

2. The Secretary of State and the Company shall from time to time agree upon the additional works and conveniences to be constructed at the said Surat Station of the Bombay and Baroda Railway, or in extension thereof, to meet the traffic of the said railway; and, upon any such agreement being made, the Company shall prepare plans and specifications of the said additional works and conveniences, and of the junction with the Bombay and Baroda Railway to be made at Surat, and shall submit the same to the Secretary of State for his approval. Such plans and specifications, when approved by the Secretary of State, shall be signed by the Consulting Engineer of the Government of India, or other officer duly authorised in that behalf to act on behalf of the Secretary of State, and by the Company's Engineer on behalf of the Company. Any such additional works and conveniences at the said junction shall respectively be constructed by the Company on land at Surat forming part of the Bombay and Baroda Railway, and shall be held by the Company, subject to the use thereof for the purposes of the said railway, upon the terms hereinafter mentioned, or such other terms as may from time to time be agreed upon by the Secretary of State and the Company. No charge or toll shall be made or levied upon or from the Tapti Valley Railway

Company in respect of the use of the lines, platforms, buildings, or other conveniences at the said Surat Station in excess of the sum to be retained from the gross earnings of the said railway under section 23 of this Contract.

3. The Secretary of State shall from time to time, on the application of the Company provide and hand over to the Company, subject to the conditions of section 60 of the principal contract with reference to land not required for the purposes of the undertaking therein defined, such land as the Secretary of State may consider to be necessary for the purpose of constructing the said additional works and conveniences, and for making the said junction. The Company shall forthwith or upon provision as aforesaid of the necessary land, if it shall be required, proceed with diligence in the construction of the said additional works and conveniences and junction, in accordance with the said plans and specifications.

4. The Company shall, during the construction of the said railway, convey over the lines of the Bombay and Baroda Railway and of the Rajputana-Malwa Railway all materials, plant, and stores required for the construction of the said railway at the same rates as are charged on the Bombay and Baroda Railway and on the Rajputana-Malwa Railway for such materials, plant, and stores used for similar purposes on those railways respectively.

Opening of Railway.

5. From time to time when and as often as an inspecting officer acting on behalf of the Secretary of State shall have certified that the whole or any part of the said railway has been constructed in accordance with the provisions herein contained, and is ready and fit for the conveyance of passengers and goods, the Secretary of State will furnish to the Company, free of all cost to the Company, a specification of such whole or part of the said railway describing the nature and quality of the works and setting out fully the general details of the construction of the same as regards earthworks, bridges, ballast, permanent way, stations, buildings, and all other matters and things of a permanent character, so as to show in every particular the standard up to which the works have been constructed, together with plans and working drawings of the same. Such specification, plans, and working drawings shall be submitted to the Agent of the Company in India, and when finally accepted by him shall be signed by him on behalf of the Company and by the Consulting Engineer of the Government of India or other officer duly authorised in that behalf to act on behalf of the Secretary of State, and shall be retained by the Company. The said specification and plans shall from time to time be revised and completed up to date as occasion shall require. The Secretary of State shall guarantee the Company undisturbed possession at all times during the continuance of this Contract of each and any portion of the said railway handed over to them.

6. As soon as may be after the said specification, plans, and working drawings have been so approved and signed as aforesaid, such part of the said railway as they respectively refer to shall be opened for public traffic, and may be worked in the manner hereinafter mentioned.

Maintenance and Working.

7. The Company shall thenceforth, until the determination of this Contract, work and maintain the said railway or such part thereof as shall for the time being have been so opened, on the terms and subject to the provisions hereinafter expressed.

8. All the business connected with the management and maintenance of the said railway and conducting the traffic thereon, including police and telegraphs and telegraphic appliances, shall in all respects, as far as practicable, be carried on in the same manner and subject to the same regulations and control by the Secretary of State as the like business on the Rajputana-Malwa Railway as now carried on under the principal Contract.

9. The Company shall charge such rates and fares for the carriage of goods and passengers over any portion of the said proposed railway, as shall from time to time be agreed upon between the Company and the Secretary of State, and adopt such classification of goods thereon as shall be from time to time in force on the Bombay and Baroda Railway. Provided that such rates, fares, and terminals, if any, are within the maximum and minimum rates, fares, and terminals, if any, for the time being in force on the Bombay and Baroda Railway. The apportionment of through rates for traffic passing over the said proposed railway to or from the Bombay and Baroda Railway or the Rajputana-Malwa Railway shall be subject to agreement between the Secretary of State and the Company.

10. The Company shall be at liberty to charge tolls according to tariffs to be settled by the Secretary of State on traffic over any roadways on bridges (if any), for foot-passengers, cattle, or carts or other vehicles.

Application of certain Conditions of Principal Contract.

11. The conditions with respect to the provision of a police force, and the provision and use of telegraphs and telegraphic appliances, and (except as is hereinafter otherwise expressly provided) with respect to moneys supplied by the Secretary of State for the purposes of the said railways shall be the same as are by the principal Contract prescribed with reference to the same matters respectively in respect of the undertaking therein defined, but the Secretary of State shall allow the Company the use of as many wires as they need at the same rate per mile as he charges for the use of wires on the Bombay and Baroda Railway.

12. During the continuance of this Contract the Company shall keep the said railway and works, or such part thereof as shall for the time being be open for public traffic, supplied with rolling stock, plant, and machinery, other than fixed machinery, as if it were part of the Bombay and Baroda Railway, and shall manage, use, and work the said railway and works or such part thereof as foresaid, and convey traffic thereon, upon, under, and subject to (save as is by this Contract otherwise expressly provided) the like terms, conditions, and restrictions as are by the principal Contract prescribed in respect of the management, use, and working of the undertaking therein defined and the conveyance of traffic thereon by the Company, and in respect of the supervision and control of the Company by the Secretary of State. And in all respects not otherwise provided for by this Contract, the Secretary of State and the Company respectively shall and may with reference to the respective matters aforesaid have, execute, enjoy, put in force, and be subject to the like rights, powers, authorities, privileges, provisions, regulations, duties, and obligations as are by the principal Contract in respect of such matters, respectively given or reserved to or imposed upon the Secretary of State and the Company respectively: Provided always, that nothing in this Contract contained shall operate so that the said railway and works shall form part of the Bombay and Baroda Railway or of the Rajputana-Malwa Railway.

13. The Secretary of State may from time to time, and with or without an application from any railway administration or person, call upon the Company to agree, and subject to the conditions of clause 9 the Company may agree, with the administration or administrations of any other railway or railways in connection with or with which there shall be an interchange of traffic with the said railway to through rates for the traffic between the stations of the said railway and those of such other railway or railways, and likewise to the apportionment of such rates among the administrations of such railways and the Company. If the Company and the said administrations, or any of them, should fail to agree in the settlement of such through rates or their apportionment, and such administrations should agree in writing to be bound by the decisions of the Goverment of India, or any authority duly appointed by the said Government in that behalf, in respect of the matters in dispute, such decisions shall be binding on the Company so long as the said administrations continue to act in accordance therewith. In arriving at its decisions the Goverment of India, or the said authority, as the case may be, shall take into consideration all the circumstances of the case, including any special expense incurred in respect of the construction, maintenance, or working of the route or any part of the route, as well as any special charges which any administration may have been entitled to make in respect thereof.

Alterations, Improvements, and Additions.

14. The Secretary of State may from time to time give notice in writing to the Company of any reasonable alteration, improvement, or addition which may, in his opinion, be required to be made in or to any part of the said railway or any of the stations or works belonging thereto or the said junction at Surat, either for the protection and security of the said works and stations, the safety of passengers or of the public, or for meeting the development of traffic on or the effectual working of the said railway or otherwise and which is estimated to cost more than Rs. 1,000. Such notice shall specify the alteration, improvement, or addition required and shall also in general terms describe the works to be executed for the purpose of effecting the same and state approximately what such works are expected to cost. On receiving any notice under this clause the Company shall with all reasonable speed execute the works described therein, the Secretary of State (except in the case of alterations or improvements in or additions to the said station at Surat or the said junction) supplying the necessary funds, or causing the same to be supplied, and providing, free of all cost to the Company, any land that may be required for the purpose. If in any case the Company shall neglect to proceed with the proposed works, or fail to complete the same to the satisfaction of the Secretary of State, the Secretary of State may enter on the said railway and works and execute the said works.

15. On the completion of works, so required, as well as on the completion of the works to be constructed under clause 3 (Surat Station), a specification such as is described in clause 5, with necessary plans, shall be prepared and signed on behalf of the Company and of the Secretary of State respectively as therein provided, and delivered to the Secretary of State together with a similarly certified statement of the cost of the said works. All such specifications and plans shall be corrected from time to time, when additions or alterations are made to the works of the said railway.

16. The cost of works the execution of which shall be carried out by the Company shall be dealt with as follows:—

(*a*) All such works, costing more than Rs. 1,000, in respect of which notice shall have been given under clause 14 hereof, shall be charged to the capital account of the Tapti Valley Railway Company.

(*b*) Petty works, costing not more than Rs. 1,000 each, shall be charged to revenue, and shall be met from the sum allowed to the Company for maintenance and working of the said railway as hereinafter provided.

Provided always, that if for any half-year the aggregate expenditure on petty works thereon shall exceed Rs. 20 per mile open in any half-year, such excess shall be charged to the capital account of the said Railway, and shall be met by the Secretary of State.

17. No moneys that may be at any time supplied or provided by the Secretary of State under this Contract shall be deemed to be moneys supplied or provided in respect of the Bombay and Baroda Railway or the Rajputana-Malwa Railway, nor shall they be entered in any of the accounts of the Company kept by them in respect of those railways.

Land.

18. Any land that may be under this Contract provided by the Secretary of State and handed over to the Company shall be held by the Company upon the like terms and conditions as are by the principal Contract prescribed in respect of land to be provided thereunder.

Accounts of Gross Earnings and their application.

19. The Company shall keep, in rupee currency in India a distinct and separate account of the gross earnings derived from the working of the said railway, or of such part thereof as shall for the time being have been opened for public traffic. Such account shall be made up half-yearly to the 30th of June and the 31st of December in each year, and shall be regularly submitted by the Company to the Secretary of State, who may audit the same and correct any error which may be discovered therein. The Company shall also within two calendar months after each of the said half-yearly days render to the Secretary of State a summary of the said account for the half-year ending on such half-yearly day.

20. The Company shall also keep in India all such subsidiary accounts and vouchers as shall be proper and sufficient for the preparation and verification of the account aforesaid, and the said accounts and vouchers shall be open at all reasonable times to inspection and transcription by any person or persons duly authorised by the Secretary of State in that behalf. The Company shall afford all proper and sufficient facilities for such inspection and transcription, and shall on the requirement of the Secretary of State (but at his expense) duly verify any such account, provided such requirement be notified in writing to the Company within three calendar months after the receipt by the Secretary of State of the summary aforesaid for any half-year. If after such verification the Secretary of State shall require any alteration to be made in any such account, or in any summary to be so rendered by the Company as hereinbefore provided, and if the Company shall give notice to the Secretary of State that they object to such alteration being made, the matter thus being in difference between the Secretary of State and the Company shall be referred to arbitration under the provision for arbitration hereinafter contained.

21. Every summary of account with respect to which, or to the accounts on which it is based, no such written requirement of verification shall have been delivered to the Company within three calendar months after the receipt by the Secretary of State of the said summary shall be deemed to be settled between and shall be binding upon the Secretary of State and the Company except that if and whenever any error shall be subsequently discovered in any such summary of account, such error shall be rectified and allowed for in the account for the half-year in which such error shall be discovered or for any subsequent half-year.

22. The said gross earnings shall, at such times and in such manner as the Secretary of State may from time to time direct, be paid without deduction into such Treasury of the Government in India as the Secretary of State may approve. The Secretary of State shall, as soon as the accounts between him and the Company in respect of the said railway and works for any half-year shall have been settled, pay over to the Company at Bombay to the credit of the Bombay and Baroda Railway a sum bearing the same proportion to such gross earnings for such half-year as the aggregate of working expenses of the Bombay and Baroda Railway bear to the aggregate gross earnings of that railway (including any standard gauge branches thereof), for the same half-year, less such sums, if any, as the Secretary of State shall be entitled to retain out of such gross receipts under clause 25, but such sum is not in any year to exceed 50 per cent. of the said gross earnings of the said railway for that year, and the said sum shall be accepted by the Company in full satisfaction and remuneration for the supply of rolling-stock, plant, and machinery, other than fixed machinery, and the managing, working and maintaining the said railway and works in accordance with the provisions of this Contract, and for the performance by the Company of every other obligation undertaken by them under this Contract with reference to the said railway and works.

23. The amount to be paid to the Company under clause 23 (less any sums retained by the Secretary of State under clause 25) shall be entered in the accounts kept by the Company in relation to the Bombay and Baroda Railway.

Rebate.

24. The Secretary of State shall be entitled to retain, in respect of and at the end of each calendar year commencing at the close of the period during which interest shall be payable out of capital by the Tapti Valley Railway Company, Limited, by way of rebate, such a sum not exceeding in any year 10 per cent. of the combined shares attributable to the Bombay and Baroda Railway, and the Rajputana-Malwa Railway, of the gross earnings (carriage of stores being excluded) from traffic interchanged between the said last mentioned railways, or either of them, and the said railway, as shall, together with the net earnings of the Tapti Valley Railway Company, Limited, for the said year to be retained by the Secretary of State, make up an amount equal to interest for the year at the rate of 4 per cent. per annum on the actual

expenditure charged in the capital account of the said railway, and shall also allow the sum of Rs. 6,000 per annum towards the office expenses and the expenses of management of the Tapti Valley Railway Company, Limited, and also all such legal expenses as may be properly incurred by the said last-mentioned Company and approved by the Secretary of State or the Government of India, and as are debitable to revenue. The payments under this clause shall be calculated at the close of each year, but payments on account and subject to adjustment may be made at the close of the first-half of each year.

Provided always, that as regards traffic interchanged between the Rajputana-Malwa Railway and the said railway, the allowance by the Company by way of rebate on such traffic above provided for shall continue only so long as the principal Contract shall continue in force.

Other accounts to be kept by Company.

25. The Company shall keep separate accounts of all moneys received by them from the Secretary of State or from the Tapti Valley Railway Company under the provisions of this Contract, and of the expenditure by the Company of the said moneys, in such forms as the Secretary of State may from time to time prescribe, and such accounts shall be from time to time made up and submitted to the Secretary of State as he may require.

Termination of Contract.

26. This Contract shall terminate at the same time at which the Contracts of the 21st day of November 1855 and the 2nd day of February 1859, under which the Bombay and Baroda Railway is worked by the Company, terminate under clauses 20, 21, or 22 of those Contracts respectively.

27. If within 12 months from the date of this Contract a Company as proposed with power to construct the said railway shall not be registered as aforesaid, and a contract between such Company and the Secretary of State for the construction by such Company of the said railway and works be lawfully entered into, this Contract shall be void and of none effect.

As to Arbitration.

28. If the Secretary of State and the Company shall fail to agree touching any matter with respect to which their agreement is required by this Contract, or if in any case not herein specially provided for, any dispute, question, or controversy shall at any time arise between the Secretary of State and the Company touching these presents or any clause or thing herein contained, or the construction hereof, or any matter connected with these presents or the operation hereof, or the rights, duties or liabilities of either party in relation to the premises, then and in every such case the matter as to which the Secretary of State and the Company shall fail to agree, or the matter in difference, as the case may be, shall be referred to two arbitrators or their umpire, pursuant to and so as with regard to the mode and consequences of the reference, and in all other respects to conform to the law in force in British India for the time being relating to arbitration.

In witness whereof Sir Alfred Comyns Lyall, K.C.B., and Sir Charles Haukes Todd Crosthwaite, K.C.S.I., being two members of the Council of India, have hereunto set their hands and seals, and the Bombay, Baroda and Central India Railway Company have hereunto caused their common seal to be affixed the day and year first above written.

Signed, sealed and delivered by the abovenamed two members of the Council of India in the presence of

W. H. TREASURE,
India Office.

A. C. LYALL. Seal.

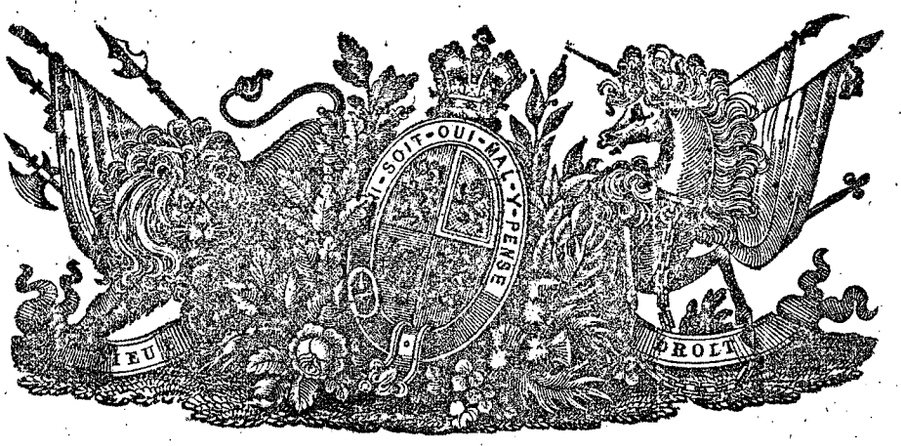
C. H. T. CROSTHWAITE. Seal.

The common seal of the Bombay, Baroda and Central India Railway Company was hereunto affixed in the presence of

C. H. DICKENS, SAML. J. WILDE, } Directors.
T. W. WOOD, Secretary.

Seal of the Bombay, Baroda and Central India Railway Company.

BOMBAY : PRINTED AT THE GOVERNMENT CENTRAL PRESS.



ADMINISTRATION REPORT

OF THE

RAILWAY DEPARTMENT,

BOMBAY,

FOR THE YEAR

1897-98.

J.J. A-3a

Bombay:
PRINTED AT THE GOVERNMENT CENTRAL PRESS.
1898.

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ADMINISTRATION REPORT

OF THE

RAILWAYS UNDER THE GOVERNMENT OF BOMBAY

FOR THE YEAR 1897-98.

The following tables give the lengths of the several lines of Railway under the control of the Government of Bombay during the year 1897-98. They exclude the Hyderabad-Umarkot Railway (59 miles), constructed by the Bombay Government as a Provincial line, that Railway being worked by the North-Western Railway and being directly under the control of the Director of Railway Traffic. Table I shows the lines grouped according to gauge, and Table II according to classification:—

TABLE I.

Gauge.	Railway.	Open for Traffic for any part of the year.	Under construction.	Surveyed or under Survey	Classification.
		Miles.	Miles.	Miles.	
5′ 6″	Great Indian Peninsula Railway	1,288·00	71·36	...	Guaranteed.
	Dhond and Manmad Railway...	145·44	...	...	State Imperial, worked by Company.
	Khamgaon Railway ...	7·55	...	...	Native State, worked by Company.
	Amraoti do. ...	5·44	...	...	
	Wardha Coal do. ...	44·88	...	...	State Imperial, worked by Company.
	Bombay, Baroda and Central India Railway	438·78	...	...	Guaranteed.
	Patri Railway	22·12	...	...	State Imperial, worked by Company.
	His Highness the Gaekwar's Petlad Railway	13 35	...	...	Native State, worked by Company.
	Godhra-Rutlam Railway ...	115·10	...	...	State Imperial, worked by Company.
	Rutlam-Nagda-Muttra Railway.	25·81	...	355·99	State Imperial.
	Nagda-Ujjain Railway ...	34·67	...	...	Native State, worked by Company.
	Muttra-Agra Railway ...	...	...	31·81	State Imperial.
	Muttra-Aligarh Railway ...	...	...	36·95	Do.
	Tapti Valley Railway (Surat *via* Nandurbar to Amalner) ...	...	156·50	...	Assisted railway, to be worked by Company.
	Baroda-Godhra Chord Line ...	...	...	44·00	Not definitely known.
	Cambay-Petlad Railway ...	...	...	19·03	Native State.
	Total 5′ 6″ Gauge ...	2,141·14	227·86	487·78	
Metre	Southern Mahratta Railway (including Bellary-Kistna Railway)	*1,045·03	...	...	State Imperial, worked by Company.
	Mysore Railway	296·00	...	...	
	Mysore-Nanjangud Railway ...	15·25	0·50	...	Native State, worked by Company.
	Nanjangud-Gudalur Railway ...	...	...	54·00	Native State.
	Guntakal-Mysore Frontier Railway	119·50		...	State Imperial, worked by Company.
	Yeshvantpur-Mysore Frontier Railway	51·35	...	...	Native State, worked by Company.
	Kolhapur Railway ...	29·07	...	...	Do. do.
	Kurnool Road—Kurnool Railway	...	...	32·00	(Unclassified).

* Includes 2·99 miles of the East Coast Railway worked over.

TABLE I—*continued.*

Gauge.	Railway.	Open for Traffic for any part of the year.	Under construction.	Surveyed or under Survey.	Classification.
		Miles.	Miles.	Miles.	
Metre ...	Rajputana-Malwa Railway ...	1,122·43	...	...	State Imperial, worked by Company.
	Rewari-Ferozepore Railway ...	290·85	...	...	
	Cawnpore-Achnera Railway ...	260·65	...	...	
	Palanpur-Deesa Railway * ...	17·28	...	...	
	Phalera-Rewari Railway ...	...	...	131·50	State Imperial.
	Sabarmati-Dholka Railway ...	...	...	33·46	(Unclassified).
	Ahmedabad-Parantij Ahmednagar Railway	54·59	...	...	Assisted railway, worked by Company.
	Bhavnagar-Gondal-Junagad-Porbandar Railway	333·46	...	...	Line owned and worked by Native State.
	Jetalsar-Rajkot Railway ...	46·23	...	...	Do.
	Jamnagar Railway ...	50·29	...	...	Do.
	Dhrangadhra Railway ...	20·62	...	...	Do.
	His Highness the Maharana of Meywar's Oodeypore-Chitor Railway	60·39	...	...	Native State, temporarily worked by Company.
	His Highness the Maharana of Meywar's Mauli-Nathdwara Railway	...	...	14·75	Native State.
	His Highness the Gaekwar's Mehsana Railway ...	92·63	...	...	Native State, worked by Company.
	Do. Patan-Harij Railway ...	...	...	23·00	Native State.
	Do. Chansama-Bechraji Railway ...	...	...	17·00	Do.
	Do. Kalol-Kadi Railway...	...	...	12·20	Do.
	Do. Kalol-Vijapur Railway	...	...	29·60	Do.
	Do. Patan-Siddhpur Railway	...	...	17·69	Do.
	Do. Siddhpur-Kheralu Railway ...	...	...	16·95	Do.
	Radhanpur-Viramgám Railway.	...	...	59·00	Do.
	Radhanpur-Patan Railway ...	...	...	41·00	Do.
	Total Metre Gauge ...	3,905·62	0·50	482·15	
2' 6"	Morvi Railway	94·36	...	...	Line owned and worked by Native State.
	His Highness the Gaekwar's Dabhoi Railway... ...	71·66	...	...	Native State, worked by Company.
	His Highness the Gaekwar's Vishwamitri-Padra Railway...	7·14	...	...	Native State, to be worked by Company.
	Do. Padra-Mobha Railway ...				
	Do. Bahadarpur-Songir Railway ...	...	...	9·00	Native State.
	Rajpipla State Railway ...	...	...	9·50	Do.
	Barsi Light Railway ...	19·03	17·80	...	Do. worked by Company.
		21·75	...	...	Line owned and worked by a Company.
	Barsi-Pandharpur Railway ...				
	Pandharpur-Sangola Railway...	...	...	32·00	(Unclassified.)
		...	...	20·00	
	Total 2' 6" Gauge ...	213·94	17·80	70·50	
	Grand Total, all Gauges ...	6,260·70	246·16	1,040·43	

* The Pálanpur Darbar has contributed towards the cost.

TABLE II.

Railway.	Gauge.	Open for Traffic.		Under construction.		Surveyed or under Survey.	
		Miles.	Total.	Miles.	Total.	Miles.	Total.
Guaranteed—							
Great Indian Peninsula Railway ...	Standard .	1,288·00	...	71·36	...	...	...
Bombay, Baroda and Central India Railway	,, ...	438·78	...	...	...	...	...
			1,726·78		71·36		...
State Imperial, worked by Companies—							
Dhond and Manmad Railway... ...	Standard .	145·44	...	...	...	...	...
Wardha Coal Railway	,, ...	44·88	...	...	...	...	...
Patri Railway	,, ...	22·12	...	...	...	...	...
Southern Mahratta Railway (including Bellary-Kistna Railway)	Metre ...	1,045·03	...	...	...	...	...
Mysore Railway	,, ...	296·00	...	...	...	...	...
Guntakal-Mysore Frontier Railway ...	,, ...	119·50	...	...	...	...	...
Rajputana-Malwa Railway	,, ...	1,122·43	...	...	...	...	...
Rewari-Ferozepore Railway	,, ...	290·85	...	...	...	...	...
Cawnpore-Achnera Railway	,, ...	260·65	...	...	...	...	...
Palanpur-Deesa Railway *	,, ...	17·28	...	...	...	...	...
Godhra-Rutlam Railway	Standard .	115·10	...	...	...	...	...
Rutlam-Nagda-Muttra Railway ...	,, ...	25·81	...	...	...	355·99	...
Muttra-Agra Railway	,, ...	...	...	...	...	31·81	...
Muttra-Aligarh Railway	,, ...	...	...	...	...	36·95	...
Phalera-Rewari Railway	Metre ...	...	...	...	...	131·50	...
			3,505·09		...		556·25
Lines owned and worked by Native States—							
Bhavnagar-Gondal-Junagad-Porbandar Railway	Metre ...	333·46	...	...	...	...	...
Jetalsar-Rajkot Railway	,, ...	46·23	...	...	...	...	...
Jamnagar Railway	,, ...	50·29	...	...	...	...	...
Dhrangadra Railway	,, ...	20·62	...	...	...	...	...
Morvi Railway	2′ 6″ ...	94·36	...	...	...	...	...
			544·96		...		...
Lines owned by Native States and worked by Companies—							
Khamgaon Railway	Standard .	7·55	...	...	...	...	...
Amraoti Railway	,, ...	5·44	...	...	...	...	...
His Highness the Gaekwar's Petlad Railway	,, ...	13·35	...	...	...	...	...
Nagda-Ujjain Railway	,, ...	34·67	...	...	...	...	...
Cambay-Petlad Railway	,, ...	...	...	...	...	19·03	...
His Highness the Gaekwar's Mehsana Railway	Metre ...	92·63	...	...	...	...	...
Do. Patan-Hari Railway	,, ...	...	...	...	...	23·00	...
Do. Chansama-Bechraji Railway ...	,, ...	...	...	...	...	17·00	...
Do. Kalol-Kadi Railway	,, ...	...	...	...	...	12·20	...
Do. Kalol Vijapur Railway ...	,, ...	...	...	...	...	29·60	...
Do. Patan-Siddhpur Railway ...	,, ...	...	...	...	...	17·69	...
Do. Siddhpur-Kheralu Railway ...	,, ...	...	...	...	...	16·95	...
Radhanpur-Viramgam Railway ...	,, ...	...	...	...	...	59·00	...
Radhanpur-Patan Railway ...	,, ...	...	...	...	...	41·00	...
His Highness the Maharana of Meywar's Oodeypore-Chitor Railway ...	,, ...	60·39	...	...	...	...	...
Do. Mauli-Nathdwara Railway ...	,, ...	...	...	...	...	14·75	...
Kolhapur Railway	,, ...	29·07	...	...	...	...	...
Yeshvantpur-Mysore Frontier Railway	,, ...	51·35	...	...	...	...	...
Mysore-Nanjangud Railway ...	,, ...	15·25	...	0·50	...	...	...
His Highness the Gaekwar's Dabhoi Railway	2′ 6″ ...	71·66	...	...	...	...	...

*The Palanpur Darbar has contributed towards the cost.

TABLE II—*continued.*

Railway.	Gauge.	Open for Traffic.		Under construction.		Surveyed or under Survey.	
		Miles.	Total.	Miles.	Total.	Miles.	Total.
Lines owned by Native States and worked by Companies—*continued.*							
His Highness the Gaekwar's Vishwamitri-Padra Railway...	2' 6" ...	7·14	...	....	...	...	...
Do. Padra-Mobha Railway ...	,, ...	...	...	...	...	9·00	...
Do. Bahadarpur-Song ir Railway ...	,, ...	...	...	...	...	9 50	...
Rajpipla State Railway	,, ...	19·03	...	17·80	...	...	...
Nanjangud-Gudalur Railway ...	Metre ...	...	...	...	...	54 00	...
			407·53		18·3)		322·72
Assisted Lines, worked by Company—							
Ahmedabad-Parantij Ahmednagar Railway.	Metre ...	54·59	...	...	...	...	...
Surat *via* Nandurbar-Amalner Railway ...	Standard .		...	156·50	...	...	...
			54·59		156·50	...	...
Line constructed and worked by private Company—							
Barsi Light Railway	2' 6" ...	21·75	...	...	...	...	...
			21·75		...		...
Unclassified—							
Sabarmati-Dholka Railway ...	Metre ...	...	...	...	...	33·46	...
Baroda-Godhra Chord Railway ...	Standard .	...	...	...	...	44·00	...
Kurnool Road—Kurnool Railway ...	Metre ...	...	...	...	...	32·00	...
Barsi-Pandharpur Railway... ...	2' 6" ...	...	...	...	...	32·00	...
Pandharpur-Sangola Railway ...	,, ...	...	...	...	...	20·00	
							161·46

Chapter I.—GENERAL.

(*For the official year ending 31st March 1898*).

Open mileage and extensions of line sanctioned.

The length of railways under the control of the Government of Bombay, sanctioned at the end of 1896-97, was 6,402·99 miles, of which 6,108·11 miles were open for traffic on the 31st March 1897. Of the unopen mileage which was under construction, 162·47 miles were on the broad gauge, 105·39 miles on the metre gauge, and 26·93 miles on the 2′ 6″ gauge.

During the year 1897-98, the total length, according to the original alignment, of the Tapti Valley Railway (Surat to Amalner) was reduced by 5½ miles owing partly to Kankrakhadi instead of Surat having been selected as the point of junction with the B. B. & C. I. Railway, and partly to the original alignment having been revised in places. The length of this line will therefore now be 156·50 instead of 162·47 miles.

The following lines were completed and opened for traffic during the year, *viz*:—

The extension of His Highness the Gaekwar's Dabhoi Railway, from Vishwamitri to Padra (7·14 miles).

The Ahmedabad-Parantij Railway, from Ahmedabad to Idar Ahmednagar (54·59 miles).

The Jamnagar Railway, from Rajkot to Jamnagar (50·29 miles).

The first section of the Rajpipla State Railway, from Anklesvar to Rajpardi (19·03 miles.)

and the Dhrangadhra Railway from Wadhwan to Dhrangadhra (20·62 miles) was nearly ready for opening. It has since been opened.

Sanction has also been accorded to the construction of the Jalgaon-Amalner line (34·05 miles) and the Chalisgaon-Dhulia length (37·31 miles) as branches of the G. I. P. Railway. Thus, on the 31st March 1898, the total length of open line under the control of the Bombay Government was 6,260·70 miles, *viz.*, 2,141·14 miles on the standard gauge; 3,905·62 miles on the metre gauge and 213·94 miles on the 2′ 6″ gauge; while a length of 227·36 miles on the standard gauge, 0·50 mile on the metre gauge and 17·80 miles on the 2′ 6″ gauge remained to be finished.

Important works completed and in progress.

Among the chief works completed on the *G. I. P. Railway* during the year under review may be mentioned the construction of an extension of the Mohpani Branch to the new coal fields of the Nerbudda Coal and Iron Company; the lighting of the Victoria Terminus Station with the Patent Welsbach Incandescent gas; the provision of signal arrangements at Poona Station; the strengthening of the girders of the Dudhi bridge, mile 522, N.-E. line; and the rebuilding of the pier tops, raising the approaches and strengthening the girders of the Mund Viaduct. The chief works in progress were certain additions and alterations at Thána station to meet the growing needs of the traffic; the erection of a new double 30-feet girder bridge at mile 44/45 on the S.-E. line to provide additional waterway at a spot recently damaged by floods; and the reconstruction of the double 30-feet girder bridge at mile 444/7 on the N.-E. line, with treble 30-feet girder openings. The work of renewing and strengthening the defective girders on the line made very satisfactory progress, and the introduction of the new system of signalling throughout the line was all but completed.

On the *B. B. & C. I. Railway*, the new Administrative Offices, opposite Church Gate Station, were nearly completed; the doubling of the line between Virar and Dahanu (39·65 miles) and Miyagam and Itola (7·82 miles) was completed, and the new second line was opened for traffic during the year. Work on the doubling of the Amroli-Miyagam and Dahanu-Sachin Sections was in progress. The programme of renewals of the old Warren girders in the line is being well worked up to, about 68 per cent. of the work having been completed at the end of December 1897.

On the *Tapti Valley Railway* (Surat to Amalner) work was practically commenced in January 1897. At the end of March last, the permanent-way had been laid and stations and buildings had been completed up to mile 22; the larger bridges had been practically completed up to mile 45, and work on the minor bridges was well forward. The first section of this line from Surat to Vyara, a length of 35 miles, will probably not be ready for opening till the end of December 1898.

On the *Rajputana-Malwa Railway*, considerable additions and alterations have been made at Cawnpore in connection with the entry of the Cawnpore-Lucknow-Gogra Railway; a new transfer station at Anwargunj for the interchange of rolling-stock with the Bengal and North-Western Railway was completed and opened for traffic in September 1897; and the works which were in progress at Ujjain Junction Station for the joint use of the Rajputana-Malwa, the Nagda-Ujjain and the Ujjain-Bhopal Railways were all but completed. The bridges over the Sunwar and Mauli nalas on the *Oodeypore-Chittore Railway* were reconstructed during the year, and a 20-feet girder bridge was erected over the Canal at mile 77 on the *Rewari-Ferozepore Railway*.

Rajpipla State Railway.—The first section of this Railway from Ankleswar to Raj-Pardi was completed and opened for traffic during the year under review. Sanction has been accorded to the commencement of work on the section from Raj-Pardi to Nandod, and by the close of the year fair progress on this extension had been made. It is expected that the line will be completed to near Nandod by June 1899.

On the *Southern Mahratta Railway System* all the home and distant signals have been altered to show red and green lights, and they have been fitted with Messrs. Saxby and Farmer's balanced arms. Of the six crossing stations referred to in last year's report as having been sanctioned, those at Tavargatti, Chinchli and Sasvad were since opened for traffic; those at Ginigera and Kusugul were ready, but, owing to the slackness of traffic due to the prevalence of the bubonic plague their opening was deferred. Considerable additions and alterations to the Locomotive Shops at Hubli were in progress and the Goods Station at the Kistna Canal and siding leading thereto, were almost ready for opening. The works in connection with the remodelling of the Bangalore City Station yard were practically completed, and an Institute has been provided at this station for the use of the joint staff of the Southern Mahratta and Madras Railways.

Principal Events.

Among the principal events which occurred during the year may be noticed:—

(i) The opening to traffic of the following lines of railway, *viz.*

His Highness the Gaekwar's Vishwamitri-Padra Railway.

The Ahmedabad-Parantij Railway.

The Jamnagar Railway.

The first Section of the Rajpipla State Railway.

(ii) The grant of a concession by the Secretary of State to the Barsi Light Railway Company for the construction of an extension of that Railway from Barsi Town to Pandharpur; the extension to be built on the 2′ 6″ gauge without any financial assistance or guarantee from Government; with this exception, the extension will be governed by the Branch Line terms laid down by the Government of India.

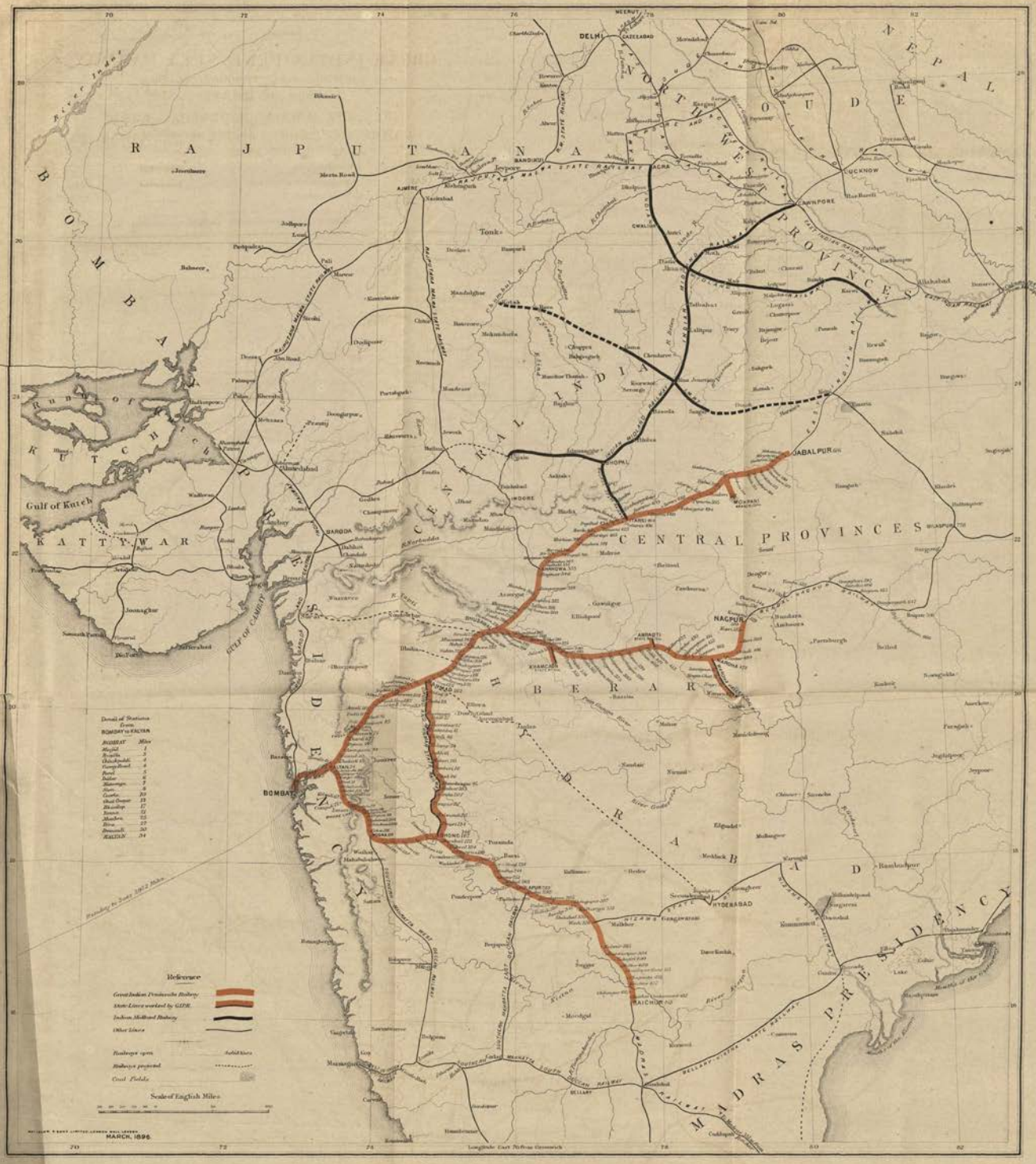
Chapter II.—Works completed and in progress.

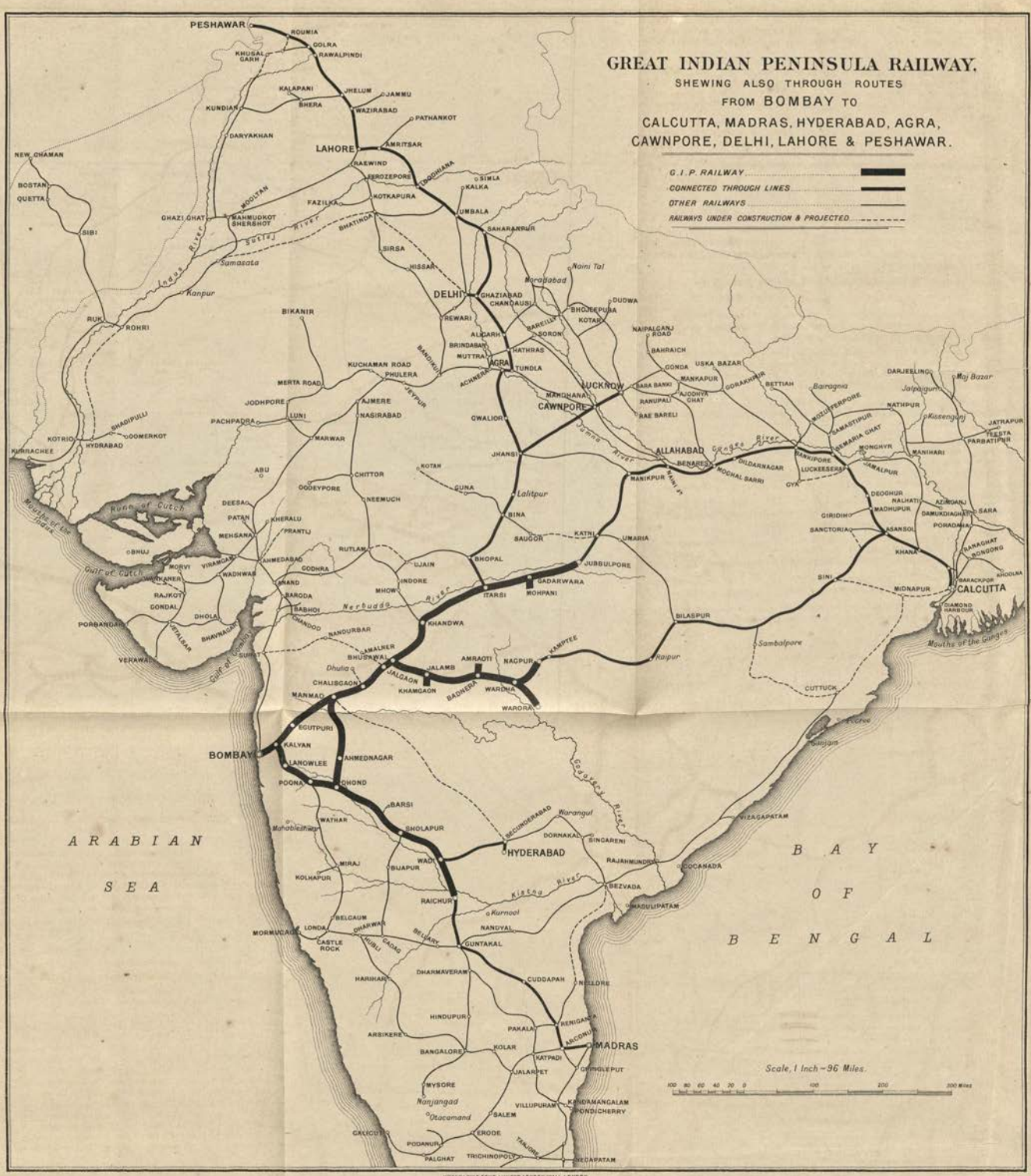
(For the official year ending 31st March 1898.)

GREAT INDIAN PENINSULA RAILWAY (*Standard Gauge*).

Towards the close of the year under report sanction was accorded to the construction of the Amalner-Jalgaon link connecting the G. I. P. with the Tapti Valley Railway. The revised estimates for this length (34·05 miles) amount to Rs. 38,51,497 or Rs. 1,13,113 per mile, excluding the cost of rolling-

GREAT INDIAN PENINSULA RAILWAY COMPANY.





WATERLOW & SONS LIMITED LONDON WALL, LONDON.

stock. The original alignment has been revised between miles 8 and 13½ and between miles 16 and 17, thereby concentrating the bridging on the line and avoiding certain curves. The line is to be constructed as a branch of the G. I. P. Railway. Work on the construction had commenced at the close of the year.

Sanction was also given to the construction of the Chalisgaon-Dhulia length (37·31 miles) as a branch of the G. I. P. Railway. The revised estimates prepared for this extension aggregate Rs. 35,25,765, or a mileage rate of Rs. 97,180, exclusive of rolling-stock. Construction work will shortly be commenced.

The programme for the renewal of rails continued to be steadily carried out during the year. As stated in last year's report, the intention is to gradually substitute steel for iron rails, so that by the end of June 1900 the whole line, with the exception of the ghâts, will have been provided with a steel road. According to this arrangement about 92¼ per cent. of the main line had been laid with steel rails at the end of December last, leaving 132 miles of iron rails to be replaced.

During the year under review the Mohpani Branch was extended to the new Coal Fields of the Narbáda Coal and Iron Company.

The lighting of the Victoria Terminus with the Patent Welsbach Incandescent gas was completed, and two of the six carriage-examining pits sanctioned for this station were constructed.

At Mazgaon Station interlocking apparatus was provided.

Additonal goods siding accommodation was provided at Dádar.

At Thána certain additions and alterations, rendered necessary by the insufficiency of the present accommodation, were in progress; and the foundations of the new station building were completed.

At Karjat station, owing to the heavy increase in the passenger traffic since 1891, and consequently in the work of shunting trains, the provision of a foot-overbridge has been sanctioned. The work will be commenced as soon as the requisite materials arrive from England.

In connection with improvements effected in traffic working on the Poona-Lonavla Section, additional loop sidings have been provided at Karli and Salaiwadi stations.

At Poona, the signal arrangements at the West or Kirkee end of the station were completed; certain alterations were carried out to the 3rd class waiting shed and a carriage-examining pit was provided. Sanction has been accorded to the provision at this station of additional running room accommodation for guards and drivers, the present accommodation being inadequate.

At Bhusawal a waiting shed for 3rd class passengers and four carriage-examining pits were provided; and the cemetery at this station was extended by the enclosure of additional land for the purpose.

To relieve the present cramped state of the Locomotive yard at Harda certain additions and alterations to the sidings in the yard were in progress. The turn-table at this station has been replaced by a new and larger one.

A platform for loading cotton at Nargaon on the Nagpur Branch was completed; and a siding and a goods platform were erected at Chandur.

At Akola additions and alterations were made to the station and a new siding was laid to Messrs. Graham and Co.'s installation for the storage of kerosine oil in bulk.

The public approach to the Diksal station had to cross four lines of rails in rear of the station building. A foot-overbridge across the rails was therefore sanctioned. The work of erection is in progress.

The erection of a new dispensary has been completed at Shahabad; and at Wadi a loop line for the troop siding.

The introduction of the new system of signalling along the line was all but completed.

The renewal and strengthening of defective girders made satisfactory progress. Up to the 31st March 1898 the work done was as under :—

30 ft. girders	...	...	431 spans strengthened.
100 ft. do.	(Chini creek type) ...	...	9 do. renewed.
60 ft. do.	(B. B. and C. I. type)	...	36 do. do.
84 ft. do.	Thána creek ...	...	1 do. do.
62 ft. do.	(Waghur and Munair type)	...	16 do. strengthened.
62 ft. Warren girders at Mund Viaduct.		...	15 do. do.
30 ft. C. I. Girders	... ...	...	4 do. renewed.
78 ft. Warren girders at Dudhi Bridge		...	6 do. strengthened.

Munair Viaduct (*mile* 182, *N.-E. Line*).—This bridge consists of 5 spans of 62 ft. girders and two 53 ft. girder openings. The 62 ft. spans on the down road have been strengthened; and the question of strengthening or renewing the 53 ft. spans on both roads having been considered, it was decided to replace the defective girders by deck girders of a stronger and more modern type. The work will be put in hand as soon as the necessary material arrives from England.

Double 30 *ft. Girder Bridge* (*mile* 444-71, *N.-E. Line*).—This bridge, which was partially destroyed by the flood of August 1897, has been reconstructed with treble 30 ft. girder openings. The work having been completed, the new bridge was opened for traffic in May 1898.

Dudhi Bridge (*mile* 522-12, *N.-E. Line*), *6 spans of 78 feet Warren pin girders.*—The second pier of this bridge was partially underscoured and canted in consequence of the heavy monsoon of 1896, causing some injury to the girders which it supported. This pier has been reconstructed with cast iron cylinders sunk 50 feet below stream level and continued above by wrought iron pillars. Piers Nos. 1, 4 and 5 counting from the west end and the west abutment have been protected with a sheet piling of 69-lb. rails driven 24 feet into the bed of the stream about 6 feet from the face of the masonry, the intervening space being filled to a depth of 6 feet with boulders. Whilst repairing the damaged girders, opportunity was taken to strengthen them and the other girders of this bridge, which was opened to traffic in May last.

Bridge at mile 44-45 (*S.-E. Line*).—The line between Badlapur and Wangni having been badly breached at miles 42 and 44 by the floods of August 1896, it was decided to provide additional water-way by the erection of a double 30 ft. girder bridge at mileage 44-45. Work on this bridge is in progress.

Mund Viaduct (*mile* 345-20, *Nagpur Branch*).—This bridge consists of 15 spans of 62 feet Warren girders. The strengthening of the girders, the rebuilding of the pier tops and the raising of the approaches to this bridge were completed during the year.

The Dhond and Manmad, The Berar and Wardha Coal State Railways (*Standard Gauge*).

No works of any importance were carried out on these lines during the year under report.

Bombay, Baroda and Central India Railway (*Standard Gauge*).

The new Administrative Offices opposite Church Gate Station were nearly completed, and at the beginning of January last the Railway Offices were removed from the old into the new building. The central dome of the structure is, however, not yet finished, the recrudescence of the plague having much retarded the completion of the work.

The doubling of the line between Virar and Dahanu, 39·65 miles, and between Miyagam and Itola, 7·82 miles, was completed, and the new second line was opened for traffic during the year. Active progress is being made on the

B.B.&C.I.RAILWAY.
(Including the Rajputana Malwa Railway)
and LINES of Railways in Connection.
Scale 64 Miles to One Inch.
Lines worked by B. B. & C. I. Ry. Co.
B. B. & C. I. broad (5ft. 6in.) gauge lines.
Rajputana Malwa metre gauge.
H. H. the Gaekwar State lines.
Other completed lines.
Lines under construction, or projected.
Feeder lines.
Lines projected by B. B. & C. I. Ry.
KASHMIR
PUNJAB
RAJPUTANA
AGENCY
BOMBAY
KUTCH
KATTYWAR
Gulf of Kutch
Gulf of Cambay
Mouths of the Indus
Rann of Kutch
Indus River
Sutlej River
Chenab River
Jhelum River
Ravee River
Beas River
Sabarmati River
Mahi River
Narbadda River
Tapti River
Godavery River
Pranhita River
Wardha River
Wein Ganga River
Ghaggur River
Luni River
Banas River
Chambul River
Sind River
Betwa River
Jumna River
Ganges River
Gogra River
Soane River
Kerowli River
Sabarmati River
Khari Creek
Kaleo Creek
Nullah
Ghaut
Pass
Coal Fields
Cantonment
Fort
Ruins
Tomb
Temple
Mosque
Light House
Caves
Sandhills
Salt Pans
Salt Works
Lake
Swamp
Marsh
Tank
Well
Bridge
Ferry
Dak Bungalow
Encamping Ground
Telegraph Office
Post Office
Railway Station
Railway Junction
Railway Workshops
Railway Engine Sheds
Railway Goods Sheds
Railway Water Supply
Railway Refreshment Rooms
Railway Waiting Rooms
Railway Booking Offices
Railway Parcel Offices
Railway Luggage Offices
Railway Signal Cabins
Railway Level Crossings
Railway Gates
Railway Bridges
Railway Tunnels
Railway Viaducts
Railway Embankments
Railway Cuttings
Railway Stations
Railway Junctions

doubling of the Amroli-Miyagam and Dahanu-Sachin sections. When these two sections have been completed, there will be a double road all the way from Colaba to Baroda, *i.e.*, for 247 miles.

The new terminal station at Colaba and the re-arrangement of the station yard was completed; and permanent quarters for gas men and additional arrangements for watering carriages were in progress.

At the request of the Bombay Municipality, sidings for the removal of town sweepings to Kurla are being laid at the south-west of Mahalakshmi Station at the cost of the Municipality so far as the works outside Railway limits are concerned.

With a view to obviating shunting on the main line, which was undesirable, additional shunting sidings have been laid between Dadar Junction and Parel.

At Dadar Station sorting sidings were in progress. These sidings are being constructed in order to prevent the delay and difficulty experienced at present in dealing with traffic coming to Bombay.

At Bandra a shed for the protection of passengers' private carriages during the monsoon and hot months has been erected close to the station; Rs. 2 per mensem is charged for each bay occupied.

Quarters for the Station Master and Deputy Station Master and a booking office are being provided at Santa Cruz.

The new Railway School at Ahmedabad is nearly completed. Additional sidings and goods accommodation have been provided at this station.

The building of a dispensary, with quarters for the medical attendant, was in progress at Surat.

At Vasad Station, the points and signals have been interlocked on Messrs. Dutton & Co.'s system.

On the Godhra Branch, the discomfort of travelling two years ago was very great owing to the dusty ballast. A steady improvement is being effected by the use of stone ballast from the Dakor quarries. Twenty-three miles on this branch have been fenced with wire in place of the euphorbia hedge that originally existed.

At Godhra itself a hospital, with quarters for compounders and servants, has been completed.

Additional siding accommodation has been provided at Sabarmati Junction with a view to facilitate the transhipment of goods and the marshalling of trains at that station.

The work of renewing the old 60′ Warren girders on the line with steel plate girders is in active progress. About 75·6 per cent. of the work was executed up to the end of the official year under report.

GODHRA-RUTLAM-NAGDA RAILWAY (*Standard Gauge*).

NAGDA-UJJAIN RAILWAY (*Standard Gauge*).

HIS HIGHNESS THE GAEKWAR'S PETLAD RAILWAY (*Standard Gauge*).

No works of importance were executed on these lines during the year.

TAPTI VALLEY (SURAT TO AMALNER) RAILWAY (*Standard Gauge*).

This line of railway, which is being constructed by the Bombay, Baroda and Central India Railway Company, was to be 162·47 long according to the original alignment. Since then, however, the total length has been reduced by 5·97 miles owing partly to the point of junction with the Bombay, Baroda and Central India Railway having been made at Kankrakhadi (a station about 2½ miles south of Surat) instead of at Surat itself as originally contemplated, and partly to the alignment having been improved in places. The length will, therefore, now be 156·50 miles only. Construction work was vigorously pushed on during the year, and up to the end of March 1898 the minor bridges had been practically completed and the larger ones were fairly well advanced. The first section of this new line, *viz.*, up to Vyara, mile 35, will probably not be ready for opening till the end of the year 1898.

Rajputana-Malwa Railway (*Metre Gauge*).

During the year 30·76 miles, which were originally laid with 41¼ lbs. rails, were relaid with 50 lbs. steel rails, and 43·93 miles of line were fenced.

Additional quarters were provided for the Traffic Department at Bandikui.

In view of the growing increase in the traffic, certain necessary additions and alterations were made to the broad gauge goods yard at Agra Fort Station.

At Ajmere a new house in place of the one sold to the Ulwar Darbar has been provided for the Engineer-in-Chief.

The waiting hall heretofore used at this station having been found to provide insufficient shelter, a shed of corrugated iron has been erected for the use of 3rd class passengers.

On the Abu Division additional quarters were provided for the Traffic staff at Abu Road Station. Quarters were also provided at this station for the use of the Assistant Engineer at Abu Road and for the Carriage Examiner at Ahmedabad.

The goods platform has been extended and a transhipment platform and siding provided at Mehsana.

On the Malwa Section a building has been provided at Mhow for the residence of the Executive Engineer, Holkar and Scindia-Neemuch District, and another building to serve as an office for that official.

The provision of quarters for the District Traffic Superintendent at Mhow was in progress.

At Rutlam an Institute has been constructed for the benefit of the Railway employés.

For the instruction of the children of the Company's servants at Rutlam and Mhow, school-houses, with quarters for school-mistress, have been provided at both of these places.

Quarters have been erected at Mhow for the use of menials of the Locomotive and Traffic Departments.

Considerable additions and alterations were rendered necessary and have been carried out at Ujjain in connection with the entry into that station of the Ujjain-Bhopal Railway from the east end of the Rutlam-Ujjain Railway from the west.

On the Rewari-Ferozepore Section a 20-feet girder bridge has been erected over the canal at mile 77.

A new school-house, with quarters for school-mistress, has been provided for the benefit of the children of railway servants at Sirsa.

At Bhiwani the water hitherto procured from a well was found to be unsuited for locomotives. Arrangements were accordingly in progress for erecting a reservoir large enough to hold at least a 4 months' supply of water, with a channel leading to the Irrigation Canal from which water is to be obtained in future.

At Bhatinda Junction certain alterations have been effected in connection with the entry of the Southern Punjab Railway into that station.

On the Cawnpore-Achnera Section, nearly all the works at Cawnpore, necessitated by the entry into that station of the Cawnpore-Lucknow-Gogra Railway, have been completed, excepting the interlocking of the transfer sidings which is in progress.

A new transfer station has been provided at Anwargunj for the interchange of rolling-stock with the Bengal and North-Western Railway. It was opened for traffic from 1st September 1897.

Palanpur-Deesa Railway (*Metre Gauge*).

His Highness the Gaekwar's Mehsana Railway (*Metre Gauge*).

No works specially worthy of mention were carried out during the year under review.

MAP
OF THE
SOUTHERN MAHRATTA RAILWAY
AND ADJACENT LINES
Scale of 48 Miles to an Inch
REFERENCES.
G.M.R. & W.I.P. lines open.
Do. Proposed.
Other Metre Gauge lines open.
Do. Proposed.
Broad Gauge lines open.
Do. Proposed.
Govt. Photozincco. Office, Poona. 1897.
BOMBAY
KALYAN
ALIBAG
POONA
KHOND
BARSI ROAD
AHMEDNAGAR
CHANDA
PANWAR
RAIKNER
MULAPUR
MYLARUM
KAZIPET
SECUNDERABAD
HYDERABAD
HOTGI
WADI
RAICHUR
BEZVADA
MASULIPATAM
ANJANWEL
CHIPLUNE
RATNAGIRI
KOLHAPUR
MIRAJ
CASTLE ROCK
MORMUGAO
GOA
KARWAR
KUMTA
HUBLI
CADAG
GUNTAKAL
DHARMAVARAM
NELLORE
ARKONAM
MADRAS
MANGALORE
BANGALORE
CHINGLEPUT
JALLARPET
MYSORE
NANJANGUD
VILLUPURAM
PONDICHERRY
SALEM
PORTONOVO
CALICUT
BEYPORE
METTUPALAYAM
ERODE
MAYAVARAM
PODANUR
TRICHINOPOLY
TANJORE
NEGAPATAM
DINDIGUL
MUTUPET
COCHIN
MADURA
QUILON
MANIYACHI
TUTICORIN
TRIVANDRUM
TINNEVELY

Southern Mahratta Railway System (*Metre Gauge*).

(Including the Mysore State Railway, the Guntakal-Mysore Frontier Railway, the Yeshvantpur-Mysore Frontier Railway, the Kolhapur State Railway, and the Nanjangud Extension.)

All the Home and Distant signals on the system have been altered to show red and green lights and have been fitted with Messrs. Saxby and Farmer's balanced arms, so as to swing to danger in case of any failure in the connections.

Of the crossing stations referred to in last year's report as having been sanctioned with a view to obviate delay to trains, those at Tavargatti (between Alnavar and Nagergalli stations), Chinchli (between Raibag and Kudchi) and Sasvad (between Ghorepuri and Phursangi) have since been opened to traffic; those at Ginigera (between Kopbal and Munirabad) and Kusugal (between Hubli and Dundur) were ready, but their opening has been deferred owing to the slackness of traffic due to the prevalence of the plague.

Main Line (Portuguese Frontier to Bezvada).

The extension of the Railway School at Dharwar was completed.

Extensive alterations are being made in the Locomotive and Traffic Yards at Hubli. The present site of the Locomotive fuel siding having been handed over to the Traffic Department, the Locomotive fuel will be accommodated in a portion of the existing store-yard which, in its turn, will be extended further north. A new shunting siding is also being put in at the east end of the yard. This will greatly relieve the block which at present occurs during busy seasons.

The cemetery at Donakonda has been completed. Additional quarters are being provided at this station for drivers, guards and brakesmen.

The erection of a bungalow, with out-houses, for the District Engineer at Guntakul was in progress, as also the building of a school for the children of Native employés stationed there.

Poona Branch (Londa to Poona).

A permanent station has been provided at Sasvad Road, and certain additions have been made to the goods platform and sidings at Sangli Station.

At Ghorepuri an Institute and quarters for the Locomotive Staff and a Dispensary and quarters for the Apothecary were in progress.

A catch and slip siding have been provided at Alandi and a catch siding is being put in at Phursangi Station.

Mysore State Railway (Harihar to Mysore).

Mysore-Nanjangud Extension.

The works in connection with the remodelling of the station yard at Bangalore City were practically completed. An Institute has been provided at this station for the joint staff of the Southern Mahratta and Madras Railways.

A new bridge is being built over the Mallur River (mile 246/12) in place of the one which failed in September 1897. Taking example from the failure of this bridge, it is intended to strengthen and improve a number of other faulty ones on the old Mysore line, the workmanship on these appearing to be inferior. An estimate for the necessary survey has been sanctioned.

Sanction having been accorded to the construction of a new station building and to the remodelling of the existing yard at Mysore, the work was about to be put in hand at the close of the year under review.

For the convenience of passengers, the Mysore-Nanjangud line is being extended from Nanjangud station to a point half a mile closer to the town.

Yeshvantpur-Mysore Frontier Section.

Estimates have been sanctioned for a catch siding at Maklidrug, and for a bungalow for the Permanent Way Inspector stationed there, who lives at present in an old construction building unsuited for habitation. Both these works have been started.

A bungalow for the Assistant Engineer in charge of the Yeshvantpur-Anantpur Division is being constructed at Dodballapur in lieu of the one at Henukonda, which is in a dilapidated condition.

Bhavnagar-Gondal-Junagadh-Porbandar Railway (*Metre Gauge*).

(Including the Jetalsar-Rajkot and Jamnagar Railway).

During the year the foot-bridge at Ranpur was completed, as also the extension of the station-house at Chital in order to provide waiting room accommodation which was much needed.

Quarters for menials of the Traffic and Locomotive Departments were provided at Bhavnagar Terminus.

At Jetalsar all the buildings and compounds were fenced, and the old station house was converted into a 3rd class waiting hall.

The goods depôt at Rajkot Para was extended and menials' quarters for the Traffic Department were completed at this station and at Rajkot Junction.

At the close of the year the principal works in progress were :—

Alteration of all home and distant signals.

Provision of station-house, station master's quarters, passenger platform, and sidings at Bhavnagar Terminus Station.

Erection of an engine shed, of a goods platform, and of a platform for loading cattle at Rajkot Junction.

Provision of wire-fencing, drinking and wash-out hydrants, and water hoists at Jamnagar.

Dhrangadra Railway (*Metre Gauge*).

This line, 20·62 miles in length, starts from Wadhwan Junction to Dhrangadra. Its construction was sanctioned in October 1897, and it was completed and opened for traffic on the 26th June 1898.

Ahmedabad-Parantij Ahmednagar Railway (*Metre Gauge*).

Work on this Railway also proceeded vigorously during the year. The first section from Ahmedabad to Talod (33 miles) was opened for traffic on 1st May ; the second from Talod to Parantij (7¾ miles) on 2nd July, and the third from Parantij to Idar-Ahmednagar (about 14 miles) on 23rd October 1897.

Morvi Railway (2′ 6″ *Gauge*).

Three miles of 41¼ lb. rails were substituted for 29-lb. rails on the Rajkot Branch between miles 55 and 58 and the banks between miles 57 and 58 were widened. Two-and-a-half miles of 19-lb. rails were replaced by 29-lb. rails on the main line between Wadhwan and Dolia.

Two 10-feet arches were added to the culvert at mile 26 ; new quarters were built for the Station Master at Muli and for gangmen at miles 5, 7, 10, 14 and 24, and a waiting room was provided at Than Road.

The following renewals were effected during the year :—

33 19-lb. rails and 5 29-lb. rails were renewed on the main line and in station yards.

45 steel sleepers for 29-lb. rails were renewed between Wadhwan and Muli.

559 steel sleepers for 19-lb. rails were renewed between Wadhwan and Morvi.

1,130 teak sleepers were renewed between Wadhwan and Wankaner.

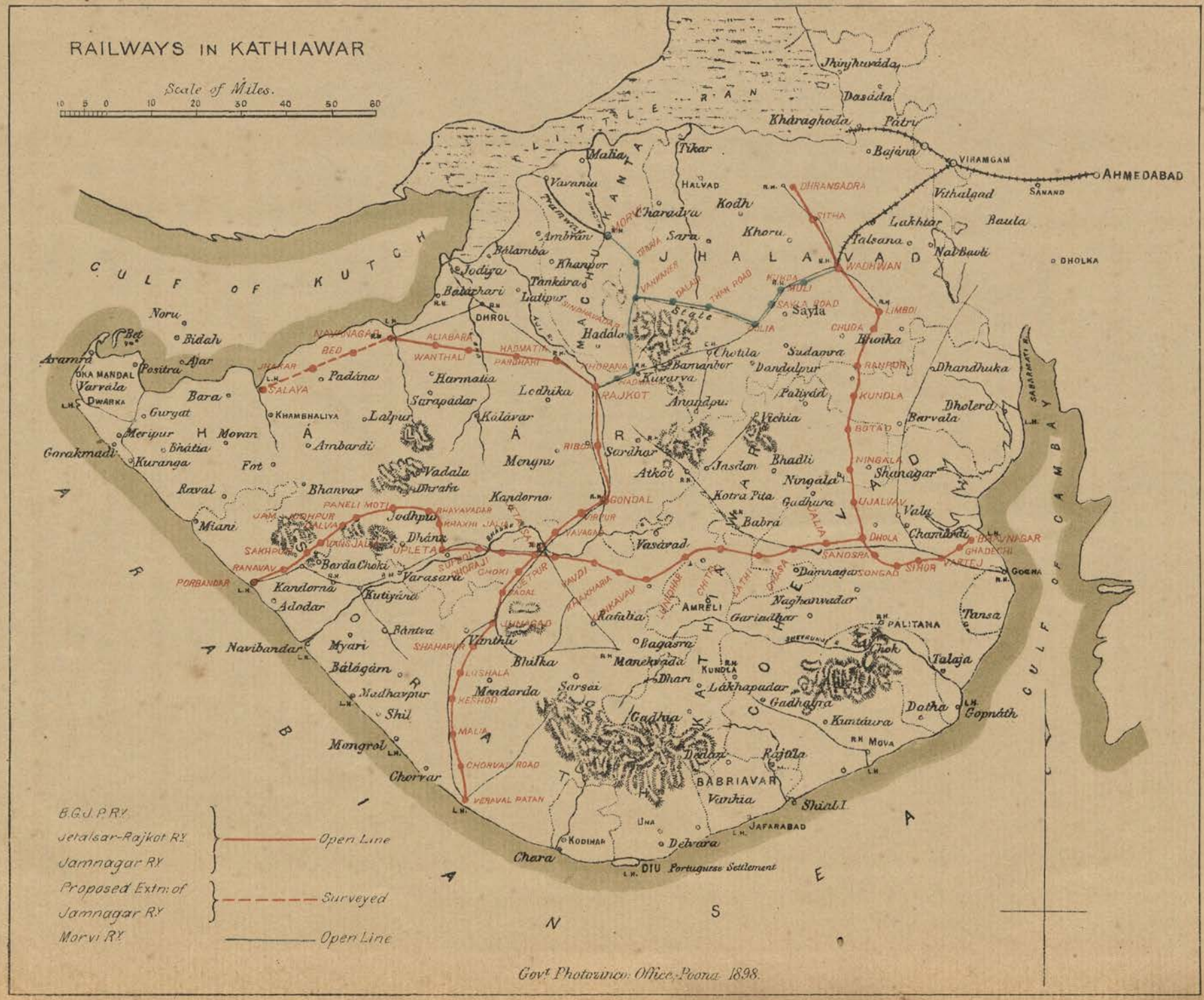
His Highness The Gaekwar's Dabhoi Railway (2′ 6″ *Gauge*).

Barsi Light Railway (2′ 6″ *Gauge*).

No works of any importance were carried out on these lines during the year.

His Highness The Gaekwar's Vishwamitri-Padra Railway (2′ 6″ *Gauge*).

This Railway (7¼ miles long), which is an extension of His Highness the Gaekwar's Dabhoi line, was completed and opened for traffic on the 1st July 1897.


RAILWAYS IN KATHIAWAR
Scale of Miles.
10 5 0 10 20 30 40 50 60
GULF OF KUTCH
GULF OF CAMBAY
ARABIAN SEA
JHALAWAD
HALAR
GONDAL
SORATH
BARDA
OKHAMANDAL
Noru
Bet
Bidah
Aramra
Ajar
Positra
Varvala
Dwarka
Gurgat
Meripur
Bhatia
Gorakmadi
Kuranga
Bara
Mowar
Fot
Khambhaliya
Padana
Salava
Lalpur
Ambardi
Harmatia
Sarapadar
Lodhika
Kalavar
Menpur
Vadala
Dhrafa
Bhanvar
Raval
Miani
Jodhpur
Dhank
Sakhpur
Ranavav
Porbandar
Kandorna
Adodar
Kutiyana
Varasara
Navibandar
Bantva
Myari
Balagam
Madhavpur
Shil
Mongrol
Chorvar
Bhatia
Jodiya
Balambha
Khanpur
Tankara
Lutipur
Balachari
Dhrol
Jam Kalavad
Wanthali
Padhari
Rajkot
Ribda
Sardhar
Atkot
Kandorna
Gondal
Bhayavadar
Khakhi Jalia
Virpur
Vavagam
Vasavad
Upleta
Sukhnath
Ghoraji
Ghoki
Chotila
Sudamra
Barnabor
Kuvarva
Anandpur
Dandalpur
Paliyad
Vichia
Jasdan
Bhadli
Kotra Pita
Gadhura
Babra
Ningala
Shanagar
Botad
Kundla
Ranpur
Limbdi
Dhrangadra
Halvad
Kodh
Charadva
Khoru
Sara
Sayla
Hadala
Chuda
Bhonika
Dhandhuka
Dholera
Barvala
Ujalvav
Dhola
Sandsra
Sihor
Songad
Vartej
Ghadechi
Bhavnagar
Goga
Valu
Chamardi
Damnagar
Naghanvadar
Amreli
Rafalia
Garimdhar
Bagasra
Manekvada
Dhari
Lakhapadar
Gadhaura
Kuntaura
Mova
Talaja
Tansa
Palitana
Chok
Dotha
Copnath
Sarsai
Mandarda
Bhalka
Vanthli
Shahapur
Lushala
Kershi
Malia
Chorvad Road
Veraval Patan
Gadhia
Dedazi
Rajula
Babriavar
Vankia
Shiali
Jafarabad
Una
Kodihar
Delvara
Chara
DIU Portuguese Settlement
Malia
Tikar
Varania
Jhinjhuvada
Dasada
Kharaghoda
Patri
Bajana
Viramgam
Ahmedabad
Sanand
Vithalgad
Lakhtar
Baula
Talsana
Nal Bavli
Dholka
Wadhwan
Kundla
Limbdi
Dhrangadra
Halvad
Morvi
Timba
Vanvaner
Dalau
Than Road
Kuda
Muli
Sayla Road
Chuda
Ranpur
Botad
Ningala
Ujalvav
Dhola
Sandsra
Sihor
Songad
Vartej
Ghadechi
Bhavnagar
Goga
Sabarmati R.
Bed
Jamkar
Salava
Aliabara
Hadmatia
Wanthali
Padhari
Rajkot
Ribda
Jam Kalavad
Khakhi Jalia
Virpur
Vavagam
Gondal
Sukhnath
Upleta
Ghoraji
Ghoki
Paneli Moti
Jodhpur
Dhank
Sakhpur
Ranavav
Porbandar
Jetpur
Paoal
Jamjodhpur
Bhayavadar
Jasdan
Vasavad
Babra
Kotra Pita
Gadhura
Ningala
Shanagar
Ujalvav
Dhola
Sandsra
Sihor
Songad
Vartej
Ghadechi
Bhavnagar
Goga
Damnagar
Naghanvadar
Amreli
Rafalia
Garimdhar
Bagasra
Manekvada
Dhari
Lakhapadar
Gadhaura
Kuntaura
Mova
Talaja
Tansa
Palitana
Chok
Dotha
Copnath
Sarsai
Mandarda
Bhalka
Vanthli
Shahapur
Lushala
Kershi
Malia
Chorvad Road
Veraval Patan
Gadhia
Dedazi
Rajula
Babriavar
Vankia
Shiali
Jafarabad
Una
Kodihar
Delvara
Chara
DIU Portuguese Settlement
B.G.J.P.Ry.
Jetalsar-Rajkot Ry.
Jamnagar Ry.
Open Line
Proposed Extn. of
Jamnagar Ry.
Surveyed
Morvi Ry.
Open Line
Govt. Photozinco. Office, Poona. 1898.

RAJPIPLA STATE RAILWAY (*2′ 6″ Gauge*).

The first section of this line from Anklesvar to Raj-Pardi, 19·73 miles, was opened for traffic on the 1st July 1897. Sanction having been accorded to the extension of this line towards Nandod, a distance of 17·80 miles, fair progress on the extension had been made at the close of the official year under report. For the present, and until the Rajpipla State is in a position to appropriate funds for the construction of the bridge over the Karjan River, the terminus of the line will be at a point about 2 miles short of Nandod. It is expected that this section of the railway will be ready for opening by June next.

Chapter III.—Lines under Survey or Projected.

(*For the official year ending 31st March 1898*).

AMALNER-JALGAON RAILWAY (*Standard Gauge, 34·05 miles*).

As regards this railway, it was stated in last year's report that the question had arisen whether the line should run from Amalner *viâ* Dharangaon to Jalgaon as originally surveyed, or from Amalner *viâ* Dharangaon and Erandol to Mahsavad instead. The question having been referred to the Government of India, that Government have decided in favour of the direct route, Amalner to Jalgaon, and have accorded sanction to this length of railway being constructed as a branch of the G. I. P. Railway. The revised estimates submitted for this extension aggregate Rs. 38,51,497, which works out to a mileage rate of Rs. 1,13,113 exclusive of the cost of rolling-stock. Construction work has already been commenced.

CHALISGAON-DHULIA RAILWAY (*Standard Gauge, 37·31 miles*).

This line was surveyed by the G. I. P. Railway authorities and plans and estimates were prepared for a first class line equal to modern requirements with a ruling gradient of 1 in 200. But the Government of India decided that, as the line is to be merely a branch of the G. I. P. Railway, fresh estimates for a cheaper line should be got out, and that a ruling gradient of 1 in 125 compensated for curvature was preferred to a gradient of 1 in 200. Accordingly revised estimates were prepared: these amount to Rs. 36,25,765, or Rs. 97,180 per mile exclusive of the cost of rolling-stock. The estimates having received the provisional sanction of the Government of India, work will shortly be commenced on this length.

CAMBAY-PETLAD RAILWAY (*Standard Gauge, 19·03 miles*).

At the request of the Cambay Durbár, a survey was carried out for a line to connect Cambay, the capital of the State of that name, with Petlad, the terminus of His Highness the Gáikwár's Anand-Petlad line. Excluding the cost of rolling-stock and also of land, which will be supplied free of charge, the estimates for this extension work out to Rs. 10,08,180, or a mileage rate of Rs. 52,978. They contemplate the use of creosoted pine sleepers for the greater part of the length towards the Cambay side, steel sleepers being used for a few miles only towards the Petlad end of the line, as steel sleepers, if employed throughout, would rapidly deteriorate in the salt soil to be found towards the Cambay end. The survey report, plans and estimates are under consideration.

Broad Gauge connection between Bhatinda and Ferozepore.

Proposals were made for providing a broad gauge connection between Bhatinda Junction and Ferozepore. The scheme entails the addition of a broad gauge line to the existing metre gauge from Bhatinda to Kotkapura Junction, and from that point to Ferozepore the conversion of the metre-gauge into a broad gauge line. In accordance with a plan drawn up by the B. B. & C. I. and North-Western Railway authorities for the working of Bhatinda yard, and in which the Southern Punjab Railway from Delhi crosses the Rajputána-Malwa Railway from the east to the west side before entering Bhatinda Station, it was intended to locate the new standard gauge line between Bhatinda and Kotkapura on the west side of the Rajputána-Malwa Railway throughout and to cross

that Railway again at the latter station. The Government of India, however, in according provisional sanction to the carrying out of the work at an estimated cost of Rs. 16,21,627, have desired that the standard gauge between Bhatinda and Kotkapura should be placed on the east side of the Rajputana-Malwa Railway, and that the second crossing of that railway should be at Bhatinda instead of Kotkapura. The work will shortly be put in hand.

RADHANPUR-VIRAMGAM AND RADHANPUR-PATAN RAILWAYS (*Metre Gauge*).

In last year's report it was mentioned that the Administrator of the Radhanpur State had proposed that a survey be made for a railway from Radhanpur *viâ* Sami to Viramgam. Since then the Administrator of this State has asked that a survey be made also of an alternative line from Radhanpur *viâ* Sami to Patan, the terminus of His Highness the Gaekwar's Mehsana-Patan Railway. Both these surveys have been carried out and plans and estimates are under preparation.

CHANSAMA-BECHRAJI RAILWAY (*Metre Gauge*).

In connection with surveys carried out some years ago for lines to connect the Gaekwari towns of Harij and Chansama with the Patan Branch of His Highness the Gaekwar's Mehsana Railway, the Baroda Durbar desired that a further survey be made for extending the proposed line from Chansama to Bechraji, a distance of about 17 miles. This survey was also carried out during the year, and plans and estimates in connection with the project are being got ready.

Metre Gauge Communication between Wadhwan and Viramgam.

The question of connecting the Kathiawar metre gauge system with the Rajputana-Malwa Railway system has for many years engaged the attention of Government. The desirability of the connection was recognized as early as the year 1883. The only break between these two systems is the length between Wadhwan and Viramgam, about 40 miles. There are three ways by which metre gauge connection between these two stations could be established, *viz.*, (1) by laying a metre gauge parallel to the present broad gauge line, (2) by laying a third rail or metre gauge track inside the existing broad gauge, or (3) by drawing in the existing gauge. It is anticipated that the connection would produce some additional cross traffic between the Rajputana and Kathiawar systems and that it would render it possible, should a contingency ever arise, to base on the Kathiawar ports and to have an unbroken metre gauge communication both to the North and North-West of India and also to the Indus at Hyderabad. The subject is at present under the consideration of the Government of India.

Other Railway Projects.—None of the other projects referred to in last year's report advanced any further during the year, with the following exceptions:—

(i) His Highness the Gaekwar's Vishwamitri-Padra Railway (7·14 miles); the first section of the Rajpipla State Railway from Ankleshwar to Rajpipla-Pardi (19·73) miles and the Dhrangadhra Railway (Wadhwan Junction to Dhrangadhra, 20·62 miles) have been completed and opened for traffic;

(ii) the extension of the Mysore-Nanjangud Railway from Nanjangud Station to a point half a mile closer to the town has been sanctioned; and

(iii) a concession has been granted by the Secretary of State to the Barsi Light Railway Company for the construction of the extension of that Railway from Barsi Town to Pandharpur, a distance of 32 miles.

Chapter IV.—Accidents.

(*For the calendar year ending* 31*st December* 1897).

The following statements show the number of accidents to trains, and the total number of persons killed and injured on the Railways open for traffic,

during the calendar year ending 31st December 1897, as compared with similar figures for the year 1896 :—

A

Number of Persons reported during the twelve months ending 31st December 1897, as killed or injured, on the Railways (open lines), under the control of the Government of Bombay, by the travelling of trains or the movement of vehicles used exclusively upon the line, distinguishing between Passengers, Railway Servants and other Persons and classifying as far as practicable the nature and causes of the accidents occasioning death or injury.

Years.	PASSENGERS. From accidents to trains, &c. Killed.	Injured.	From falling between Carriages and Platforms. Killed.	Injured.	Falling on to the Platform, Ballast, &c., when getting into or out of Trains. Killed.	Injured.	Whilst crossing the line at Stations. Killed.	Injured.	By the closing of Carriage Doors. Killed.	Injured.	Falling out of Carriages during the travelling of Trains. Killed.	Injured.	Other accidents. Killed.	Injured.	Total. Killed.	Injured.	Total Passengers. Killed.	Injured.
1896 ...	13	36	3	4	1	1	3	...	...	...	8	38	3	1	18	44	31	80
1897 ..	20	19	1	5	...	...	1	...	...	..	7	47	2	2	11	57	31	106

Years.	SERVANTS. From accidents to Trains, &c. Killed.	Injured.	During shunting Operations. Killed.	Injured.	Falling off Engines, Vans, Wagons, &c. Killed.	Injured.	Coming in contact with Over-bridges, &c., during the travelling of trains. Killed.	Injured.	Coming in contact while shunting, with Vehicles, &c., standing in adjoining lines. Killed.	Injured.	Getting on or off Trains, Engines, &c. Killed.	Injured.	While loading, unloading or sheeting. Killed.	Injured.	Whilst breaking, spragging or chocking wheels. Killed.	Injured.	Whilst working at Cranes or Capstans. Killed.	Injured.
1896 ...	3	18	11	10	...	...	...	...	3	7	...	2	2	...	...	...	3	7
1897 ..	7	23	6	8	...	...	...	1	1	2	...	4	..	1	...	1	6	13

Years.	Whilst working on the permanent-way, or in sidings. Killed.	Injured.	Whilst walking along the Line on the way home or to work. Killed.	Injured.	Whilst walking, crossing, or standing on the Line. Killed.	Injured.	Whilst passing between vehicles. Killed.	Injured.	Whilst attending to the Machinery of Engines, cleaning them, &c. Killed.	Injured.	Whilst attending to Gates at level-crossings. Killed.	Injured.	Falling or being caught between Vehicles and platforms. Killed.	Injured.	Falling off ladders, Scaffolds, Platforms, &c. Killed.	Injured.	By falling of lamps, Wagon-doors, Timber, weights, &c. Killed.	Injured.
1896 ...	8	16	...	1	3	9	...	3	...	5	2	...	6	6	1	...	...	1
1897 ..	5	11	...	...	4	14	...	4	8	...	...	...	10	5	1	2	...	...

Years.	Whilst coupling or uncoupling Wagons. Killed.	Injured.	Miscellaneous. Killed.	Injured.	Total. Killed.	Injured.	Total servants. Killed.	Injured.	OTHERS. Whilst passing over the Railways at level-crossings. Killed.	Injured.	Trespassers. Killed.	Injured.	Suicides. Killed.	Injured.	Miscellaneous. Killed.	Injured.	Total others. Killed.	Injured.	TOTAL ALL CLASSES. Killed.	Injured.
1896 ...	1	1	6	13	46	81	49	99	9	4	64	26	20	...	5	3	107	33	187	212
1897 ..	2	1	13	15	56	82	63	115	5	6	81	17	29	...	5	3	128	26	222	237

B

Accidents to Trains, Rolling-stock, Permanent-way, &c., reported during the twelve months ending 31st December 1897, as having occurred on the Railways under the control of the Government of Bombay, distinguishing the different classes of accidents, and the number of Passengers and Others and of Railway Servants killed or injured in each class of accidents.

	During 1897,						
	Number of Train Accidents.	Number of Passengers and Others.		Number of Servants.		Total all Classes.	
		Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
1. Collisions between passenger trains or parts of passenger trains	1	...	2	...	...	...	2
2. Collisions between passengers trains and goods or mineral trains, engines and vehicles standing foul of the line	1	...	...	...	...	...	...
3. Collisions between goods trains or parts of goods trains	10	...	...	...	2	...	2
4. Collisions between light engines	...	...	...	...	...	...	...
5. Passenger trains or parts of passenger trains leaving the rails	26	...	...	...	...	...	...
6. Goods trains or parts of goods trains, engines, &c., leaving the rails	45	...	...	...	...	...	...
7. Trains or engines travelling in the wrong direction through points...	39	4	27	1	5	5	32
8. Trains running into stations or sidings at too high a speed	14	...	...	...	..	...	...
9. Trains running over cattle on the line ...	597	...	...	...	...	...	...
10. Trains running over obstructions on the line ...	58	2	5	...	...	2	5
11. Trains running through gates at level-crossings...	23	...	1	...	1	...	1
12. The bursting of boilers of engines... ...	...	...	...	...	...	...	...
12A. The bursting of tubes, &c., of engines ...	58	...	...	...	...	...	...
13. The failure of machinery, springs, &c., of engines	208	...	...	...	...	...	...
14. ,, ,, of tyres	15	...	...	...	...	...	...
15. ,, ,, of wheels	10	...	...	...	...	...	...
16. ,, ,, of axles	37	...	...	...	...	...	...
17. ,, ,, of brake apparatus	1	...	...	...	...	...	...
18. ,, ,, of couplings	110	...	...	1	7	1	7
19. ,, ,, of tunnels, bridges, viaducts, culverts, &c.	2	16	16	4	2	20	18
20. Broken rails	23	...	...	...	...	...	...
21. The flooding of portions of permanent-way ...	36	...	4	...	...	...	4
22. Slips in cuttings or embankments... ...	19	...	...	...	...	...	...
23. Fire in trains	61	...	...	...	...	...	...
24. Fire at stations, or involving injury to bridges or viaducts	16	...	...	...	...	...	...
25. Other accidents	75	...	...	1	6	1	6
Total of all classes in 1896 ...	1,637	17*	36	3	17	20	53
Do. in 1897 ...	1,485	22‡	55†	7	23	29	77

	1896.	1897.
Mean mileage worked	6,258·43	5,702·50
Train mileage of all descriptions	23,414,744	23,246,143
Number of passengers carried	49,415,459	40,520,498
Train miles per accident	14,303·44	15,653·96
Passengers killed per million	0·26	0·49
,, injured per million	0·73	1·28

* Of these 4 were not passengers.
‡ ,, 2 ,, ,,
† One was not a passenger and 2 were cartmen.

The following statement shows the number of train miles run, the number of accidents, excluding running over cattle, and the average number of train miles per accident on each railway during the year 1897 :—

	Train miles.	No. of Accidents.	No. of train miles per Accident.
G. I. P. Railway System	10,323,207	365	28,282
B. B. & C. I. Railway, including the Godhra-Rutlam and His Highness the Gaekwar's Petlad Railways	2,820,505	211	13,367
His Highness the Gaekwar's Dabhoi Railway ...	81,285	11	7,389
Rajputana-Malwa Railway System, including His Highness the Gaekwar's Mehsana Railway ...	5,161,523	297	17,378
Southern Mahratta Railway System, including the Mysore State Railway, the Kolhapur State Railway, the Bangalore-Mysore Frontier Railway, the Guntakal-Mysore Frontier Railway, and the Nanjangud Extension	4,063,986	518	7,845
Rajpipla State Railway...	6,930	5	1,386
Bhavnagar-Gondal-Junagad-Porbandar Railway, including the Jetalsar-Rajkot Branch ...	608,184	47	12,940
Morvi Railway	180,523	34	5,309

G. I. P. Railway System (*Standard Gauge*).

(Includes the Wardha Coal, the Dhond and Manmad, and the Berars State Railways).

On the 16th January an engine, while entering the Locomotive Yard at Sohagpur, was turned on to the wrong siding, thereby colliding with another engine. A railway servant was injured.

On the 26th January, traffic between Jalamb and Murtajapur (Nágpur Branch) was blocked and telegraphic communication stopped owing to trees having fallen on the telegraph wires and across the line during a heavy storm. Two railway servants were injured by the pilotman's hut having been blown down on the occasion.

On the 6th March two wagons attached to No. 318 Up Goods train were derailed on the Pothra bridge at mileage 29/9 (Wardha Coal State Railway) near Nagri Station, owing to the bosses of the wheels working loose through wear and tear. The rolling-stock, permanent-way and bridge were considerably damaged. Cost of damages Rs. 9,440. No one was injured.

On the 15th June the engine and 7 carriages of No. 203 Down Passenger train were derailed at mile 346½ between Bagmar and Khandwa Stations owing to a rail having been removed from the down line by a muccadum and a gangman with the intention of wrecking the train. They were prosecuted and sentenced: the former to transportation for life and the latter to 7 years' rigorous imprisonment. The engine, rolling-stock and permanent-way were slightly damaged. No passengers were, however, injured.

On the 21st June a collision occurred between Nos. 73 Down Goods (carrying passengers) and 102 Up Goods trains at Shahabad Station owing to the points being wrongly set. Four passengers and a railway servant were injured. Both the engines and the rolling-stock were damaged. The muccadum, pointsman and signalman were prosecuted and sentenced: the muccadum to one month and each of the two others to 15 days' rigorous imprisonment.

On the 22nd June the Tee plate on one side of the central diagonals in each of the inside girders of Nos. 13 and 14 spans of the Mund bridge was found to be cracked through, and the bridge was considered unsafe for engines though safe for carriages and wagons. The damage was repaired on the 26th idem and the engines were permittted to work trains across the bridge as usual. There was some detention to traffic in consequence of the damage to this bridge.

On the 11th July the engine of No. 30 Up Passenger train collided with the brakes of No. 33 Up Ghat Trip Train at Bhor Ghat Reversing Station owing to the points being wrongly set. The engine and the brake vans were somewhat damaged and the driver was slightly injured.

On the 28th September a Down Passenger train collided with a Down Goods train at Martur Station owing to the points having been wrongly set. A female passenger was slightly injured. The rolling-stock, however, was considerably damaged. The Assistant Station Master and Muccadum concerned in the accident were prosecuted and sentenced: the former to 6 months' rigorous imprisonment and the latter to a fine of Rs. 50, or, in default, to 3 months' imprisonment; the fine was paid.

On the 4th September, the engine of No. 267 Down Mixed train and the shunting engine of No. 211 train working with Madras Railway, loaded goods wagon No. 878 attached in front, collided near Dhond Station on the Dhond and Manmad line, resulting in the death of Pointsman Shunker Kusha. The Engine No. 211 and a wagon were damaged.

On the 24th December, the left leading tyre of the wheel of a third class carriage of the Up Nágpur Mail train broke into pieces near Sion Station and caused the leading wheels to leave the rails, and to run on the ballast about $\frac{3}{4}$ths of a mile; this accident was due to the metal of the tyre being brittle. The rolling-stock and the permanent-way were damaged to some extent and traffic was considerably delayed.

B. B. & C. I. Railway (*Standard Gauge*).

(Includes the Godhra-Rutlám-Nágda and the Nágda-Ujjain Railways, and His Highness the Gaekwar's Petlad Railway).

On the 9th January, after the engine and four leading vehicles of an Up Mail train which was booked to run through Gholvad Station had passed the north points on the platform line on which a Down Mixed train was standing, the pointsman, discovering his mistake, threw over the points for the main line, thus splitting the train and causing derailment of some of the vehicles. The front portion of the Mail train collided with the Mixed train, resulting in serious damage to both the engines, to the rolling-stock and the permanent-way. The cost of damages amounted to Rs. 49,004. Four passengers and a railway servant were killed and twenty-two passengers and two railway servants were injured.

On the 20th January, both axles of G. I. P. Railway Wagon No. 2243 of an Up Special Goods train broke through a flaw in the metal at Sabarmati Station; in consequence four wagons were derailed, two completely smashed, and four other wagons somewhat damaged. The permanent-way was also damaged.

On the 25th June, a shunting engine ran into the catch siding at Sabarmati Station and collided with 4 wagons that were standing there; the leading wheels of the engine were derailed, owing to the points not being properly set. The fireman and two khalasees were slightly injured. The rolling-stock and the permanent-way were somewhat damaged.

Rajputana-Malwa Railway System (*Metre Gauge*).

(Includes the Cawnpore-Achnera, the Palanpur-Deesa, and His Highness the Gaekwar's Mehsana Railways).

On the 17th April, a cow was run over by the engine of No. 3 Up Mixed train near Level-crossing Gate No. 27 at mile 809/3 between Sendra and Beawar Stations, through which the animal had got on to the line. The leading wheels of the engine were derailed. The gateman, for being absent, was dismissed from the service.

On the 20th May, the engine and a luggage van of No. 58 Down Mail train were derailed at mile 131/5 between Suchan Kotli and Sirsa Stations owing to a sand-bank due to a storm; the Nos. 59 Up and 58 Down Mail trains were detained.

4 hours 30 minutes, and 10 hours 30 minutes, respectively, and No. 60 Down Mixed train also suffered a detention of 48 minutes in consequence.

On the 25th May, all the bogie wheels of the engine of No. 258 Down Mail train were derailed at mile 169/6 between Raman and Kalanwali owing to a sand-bank due to a storm; Nos. 58 Down and 59 Up Mail trains were detained 3 hours 40 minutes and 3 hours 32 minutes, respectively.

On the 6th July, a light engine collided with six bogie wagons at Mundu Station, and the driver and fireman were slightly injured. The rolling-stock and permanent-way were also slightly damaged.

On the 27th July, the engine of No. 7 Up Mixed was derailed at mile 206½ between Mursav and Raya Stations owing to fencing posts having been placed on the line. No. 7 Up Mixed train was detained 3 hours and 45 minutes in consequence.

On the 28th July, the leading right hand axle of a loaded material trolly broke close to the boss of the wheel near Mhow Station, while going down the ghâts, and Sub-Inspector Adam was thrown off and injured.

On the 30th July, while shunting at Rewari, an engine, owing to the points being wrongly set, collided with No. 27 Up Local train which was standing on the 2nd line foul of the crossing. The rolling-stock was slighty damaged.

On the 13th December, the engine and four wagons of No. 83 Up Goods train got derailed on the bridge at mile 33/16 Agra Branch between Bhurtpore and Helak Stations. The accident was due to defective sleepers and bad road.

On the 16th December, No. 2 Down Mail train collided with the District Traffic Superintendent's trolly in front of his bungalow at mile 464, between Abu Road and Kivarli Stations, through the carelessness of the trolly-men in not exhibiting red lights. The body of the trolly was damaged and the engine buffer beam bent. The District Traffic Superintendent accepted responsibility for this accident.

Southern Mahratta Railway System (*Metre Gauge*).

(Includes the Mysore State Railway, the Kolhapur State Railway, the Guntakal-Mysore Frontier Railway, the Yeshvantpur-Mysore Frontier Railway, and the Nanjangud Extension).

On the 10th May, a Down Mail train collided with a Down Mixed train standing on the main line at Koregaon Station, owing to the facing points not having been properly set. Two passengers were injured, and the rolling-stock was considerably damaged.

On the 18th May, while the driver was attending to certain defects in the engine of the Down Mixed train at mile 478/3 between Satalur and Phirangipuram Stations, the train was run into by a light engine which had improperly been allowed to leave the former station before the Down Mixed had cleared the section. Four railway servants were injured and the permanent-way was damaged.

On the 25th May, a country cart was run into by an Up Goods train at the Level-crossing Gate at mile 17014 between Tumkur and Hirehalli Stations. The cartman was injured.

On the 26th June, No. 61 Up Mixed train parted outside the south distant signal of Devangeri Station, and the rear portion of the train collided with the front portion owing to the driver suddenly stopping; the guard and the brakesmen were slightly injured. The rolling-stock was considerably damaged.

On the 8th July, 21-33 Up Special Goods train parted at Nagargalli east distant signal owing to the breakage of the coupling of a wagon due to a flaw in the metal. The rear portion, consisting of 21 wagons and 2 brake vans, ran back to mile 41/20, between Alnavar and Kambarganvi Stations and collided there with 23-50 Up Special Goods train, with the result that the engine and

12 wagons were capsized and telescoped in a cutting. The brake van of the parted train was completely smashed. The driver, 1st and 2nd firemen, and the guard of 23-50 Up Special Goods train were injured. The rolling-stock was considerably damaged.

On the 11th August, an Up Goods train parted at mile 28/6 between Nagargalli and Devarayi owing to the breakage of the coupling hook of a wagon due to inferior metal and a bad flaw. The rear portion, consisting of 15 wagons and a brake van, ran back towards Tavargati Station where it was turned into the dead end siding. Two vehicles were capsized and nine vehicles derailed, blocking the main and platform lines which were cleared the next day. The Guard, Williams, was slightly injured. Passengers, &c., of Up and Down trains were transhipped. The rolling-stock and the permanent-way were considerably damaged.

On the 28th August, while No. 96 Down Goods train was being formed on the Bijápur Branch line near the top points, No. 1 Tranship train entered the branch line at Gadag station owing to points No. 1 having been locked for that line instead of for the Hubli main line, with the result that the train collided sideways with the rake of the Down Train, causing the engine and five vehicles to be derailed at the crossing. The rolling-stock and the permanent-way were slightly damaged.

Bhavnagar-Gondal-Junagad-Porbandar Railway (*Metre Gauge*).

(Includes the Jetalsar-Rajkot and Jamnagar Railways).

On the 10th February, a bullock cart was knocked off the line by the engine of an Up Mail train at a level-crossing near Vidal Station. The cartman was injured.

On the 12th March, a plough drawn by bullocks which was crossing the line when a Down Mixed train was approaching was smashed by the engine. The ploughman was injured.

Morvi Railway (2′ 6″ *Gauge*).

On the 16th May, a bullock cart was thrown off the line by an Up Mixed train at the level-crossing between miles 18 and 19 near Dhola Station. The cartman was injured.

On the 10th June, a buffalo was run over at mile 66 (Rajkot line) between Khorana and Rajkot Stations by the engine of a Down Mail train; the engine tender and bogie wheels were derailed along with the brake van and two other vehicles. No one was injured. The rolling-stock was considerably damaged, but the permanent-way only slightly. Passengers had to be transhipped.

On the 2nd September, four carriages of an Up Mixed train were derailed at the curve at mile 0/10 near Wadhwan, owing to the spreading of rails. No one was injured, but the permanent-way was slightly damaged.

His Highness the Gaekwar's Dabhoi Railway (2′ 6″ *Gauge*).

On the 31st May, a rake of loaded wagons having been shunted by a contractor's cooly against orders in the yard at Bhilapur Station, collided with a bullock cart which had entered the yard during the absence of the gateman. The cartman was run over and killed.

On the 17th July, an Up Mixed train ran over a man who was sleeping on the line at mile $\frac{371}{12-13}$ between Bodelli and Bahadarpur Stations, and four wagons of the train were derailed.

Oodeypore-Chitor Railway (*Metre Gauge*).

Rajpipla State Railway (2′ 6″ *Gauge*).

Barsi Light Railway (2′ 6″ *Gauge*).

There were no accidents of a serious nature on these lines during the year under report.

Flood Damages.

Great Indian Peninsula Railway System (*Standard Gauge*).

(Includes the Wardha Coal, the Dhond and Manmad and the Berar State Railways.)

Owing to very heavy rain on the morning of the 22nd June, the bank on the up side of the line at mile 63¼ (Bhore Ghát) was washed away at the double 2 feet flat-top skew culvert. This was due to the failure of several cover stones of the culvert which allowed the earth to wash through. The damaged cover stones were removed and replaced by short pieces of old rails, and the breach in the bank was repaired. On the night of the 24th June about 11 tons of rock fell on to the down road near Tunnel No. 21 at mile 72½ Bhore Ghát and the permanent-way was slightly damaged. The road was cleared early next morning.

On 24th July, the No. 2 abutment wall of the 2 feet covered culvert at mileage 426/36, North-East Line, fell in under the road, causing the earth and ballast to sink away, leaving 3 or 4 pots empty. The road was quickly repaired and traffic restored. This culvert has since been reconstructed as a 4 feet flat-topped one.

Owing to heavy rain on the night of 6th August and morning of the 7th, the line between Badlapur and Wangi stations was damaged, breaches being made in two places at 42 and also at mile 44 involving complete suspension of traffic. The line was cleared on the 8th idem; at about the same time a very heavy slip of rock and muram, which had been preceded by some minor slips during the morning, occurred at the upper end of No. 21 Tunnel (Bhore Ghát) completely blocking the line. The obstruction was removed and the road restored on the 9th August.

On the 7th August, a heavy slip of rock and murum occurred at mile 72, 57 chains at the mouth of Tunnels Nos. 20 and 21 and both lines were blocked and flooded with water. The running of trains was stopped and passengers for Bombay or for other places beyond Lonavla were carried *viâ* the Dhond and Manmad line till the 9th August, when the up road through the tunnels was reported to be again ready for traffic and for the running of passenger trains.

On the 14th August between Seoni and Dharam Kundi the line was severely tested; the low-lying parts of the adjacent lands on either side were completely submerged for several hours and it was with difficulty that the bridges and culverts were able to discharge the water with sufficient quickness.

At the double 30 feet girder bridge at mile 444 (North-East Line) the water rose to within 1 foot 6 inches of the girders, a height previously unknown, the level of the rails being 27 feet above the bed of the nála. After the flood had subsided, it was seen that the embankment had slipped and had been badly scoured behind the south-west wing. This scour was filled in on the following day and the slip repaired. At the same time an old crack in the south pilaster of No. 1 abutment had opened about ½ an inch. The next day two fine cracks were observed across the line in the embankments behind the abutment.

On the 20th at 14 o'clock the whole of the abutment and the south-west wing fell forward without warning of any kind; the north-west wing and a portion of the pilaster were alone left standing. In falling forward the mass of masonry in the abutment struck the pier and caused it to lean over 7 inches out of the perpendicular towards Jubbulpore, and at the same time carried the earth in the embankment behind with it for about 20 feet back. The girders carrying the No. 1 span, which were left unsupported by the fall of the abutment at the Bombay end, were held in suspension by the rails, the chair spikes in the longitudinal timbers fastened to the cross girders alone holding up the span.

The failure of the abutment was due to water having got behind it and into the holes and cracks in the masonry which was of a most inferior description inside; and also to the sodden state of the embankment behind, which increased the pressure on the abutment, ultimately overcoming its stability and forcing it forward.

Immediately after the accident steps were taken to make a pathway and small planked bridge over the nála (for the use of passengers crossing from one side of the bridge to the other) at some little distance below the bridge where the channel was narrow and the water shallow; this pathway was brought into use on the morning of the 21st August for the transhipment of the Up Mail passengers.

On the 24th September owing to very heavy rain, the slopes of the cutting near Padli were damaged; in two places small slips occurred which blocked the side trench, &c. The four 2 feet culverts at mile 94/64 were unable to pass all the water that came to them and the surplus consequently flowed along the cess to the next culvert, thus washing away the stone ballast from the line.

During heavy rain on the night of 27th September, several of the small open culverts between miles 143 and 144, North-East Line, were for a time unable to pass all the water and consequently the rails were submerged a few inches at two or three places. No damage was done.

In consequence of the abovementioned heavy flood, the No. 1 up return wall of the 7 feet arch at mile 136/60 was underscoured and fell, the foundation not being carried low enough. No damage was done to the bridge itself.

B. B. & C. I. Railway System (*Standard Gauge*).

(Includes the Godhra-Rutlam-Nagda and the Nagda-Ujjain Railways and H. H. the Gaekwar's Petlád Railway).

On the 11th July, owing to heavy rain, a slip of stone and earth occurred in the cutting 3,000 feet south of the tunnel at mile 79 between Amangarh and Bajrongarh Stations. No. 13 Down Mixed train was detained 2 hours and 8 minutes in consequence.

On 14th July, the earth at the back of the north and south abutments of Culvert No. 472, near Sáyan Station, became soft after heavy rain and sank. No. 7 Down Mixed train was detained 40 minutes in consequence, and all the trains had to be taken cautiously through on the platform siding. The main line was restored the next day.

On the 16th July, owing to heavy rain, the bank between disc signals near bridge No. 90 near Sophala Station was damaged. Trains were ordered to run cautiously till the bank was repaired.

On the 10th August, the flood in the Mhye near Sevalia Station was so heavy that trains could not pass over the low-level bridge, but on the next day traffic was resumed.

On 6th September, about 2,000 cubic feet of murum slipped from the top of the cutting No. 37 at mile $\frac{37}{4-5}$, Godhra-Rutlam Section, near Jekot Station, on to the line, and No. 47 Down Goods train ploughed through it. The obstruction was cleared away at once.

Rajputana-Malwa Railway System (*Metre Gauge*).

(Includes the Cawnpore-Achnera, the Palanpur-Deesa, and H. H. the Gaekwar's Mehsana Railway).

During very heavy rain on the night of the 17th July 1897, the country between Somesar and Jawalia (Abu Road Division) was flooded, and water rose on the east side of the line at mile 380/381. The 3½ feet openings between the Dhutaria Nálá, mile 381, and Somesar Station could not carry off the water, with the result that at mid-day on the 18th, the rails were topped and a length of 90 feet of bank 8 feet high was washed away. The water continued to flow throughout the day, and did not subside till late at night. The flood was abnormal, nothing like it having occurred in that locality since the line was opened in 1882.

On the 8th August, owing to heavy rain, a slip occurred in Culvert No. 328 at mile 326 between Kalakhund and Patalpani and the line was blocked for four hours.

On the 9th August, between miles 369 and 371 near Attar, the flood water rose to rail level and the ballast, about 10 sleepers' length, was washed away.

On the same day, a great quantity of stones and mud was washed down from the hills at mile 326½ between Namli and Rutlám Stations, and Culvert No. 328 was completely blocked; also in the cutting at mile 326¾ stones and mud were washed down, completely burying the rails for a length of 30 feet. The line was immediately cleared. At mile 326 between Kalakhund and Patalpani, the Culvert No. 328 was again blocked for four hours.

On the 9th August a landslip occurred in the cutting near Tunnel No. 4, and No. 73 Down train was detained there and No. 69 Up at Patalpani.

On the 26th September, a stone weighing about a ton fell in the cutting at mile 462 between Kivarli and Abu Road Stations. The obstruction was cleared in half an hour before No. 2 Down Mail train arrived.

SOUTHERN MAHRATTA RAILWAY SYSTEM (*Metre Gauge*).

On the 18th June, owing to heavy rain, the line at mile 158/15, Bijapur Branch, between Tadwal and Lachan was washed away for about 22 feet. Passengers, &c., of Nos. 93 Up and 96 Down trains had to be transhipped. Both trains were detained 7 hours and 55 minutes in consequence.

On the 6th September, the ballast at mile 350/3 between Chelama and Diguvametta Stations was washed away for about 50 feet in length and a large mass of rock slipped from the cutting and fell on to the line causing one of the rails to be badly bent.

On the 10th September, a stone about 2 feet in diameter slipped from the top of the cutting at mile 258/5 between Rájewadi and Alandi Stations and fell on the line.

On the 19th September, the ballast was washed away at mile $\frac{310}{8-11}$ between Betamcherla and Panyam Stations for about 5 rails' length. Two large stones slipped from the cutting and fell on to the line at mile $\frac{306}{6-7}$; the obstruction was removed the same day.

On the 21st September at mile 147/2 between Kopbal and Nusseerabad, the nála which crosses the line from south to north through the 10 feet arch bridge, overflowed its banks and the water, rushing down the south side of the line, caused breaches at mile 147/11⅔ and 147/10¾ and the stone ballast was scoured at the former place for a length of 70 feet and at the latter for a length of 25 feet. A portion of the bank at the north side of the line was also washed away.

On the same day the ballast was washed away from under the sleepers for a length of one telegraph post at mile 236/8 between Bidadi and Closepet Stations. In consequence, the engine of No. 70 Down Mixed train, nine covered goods wagons and three third class carriages were derailed and thrown off the line, which, however, was restored the next day. The passengers of up and down trains had to be transhipped. Four passengers were injured and the rolling-stock was considerably damaged.

On the 23rd September the pitching of the girder bridge at mile 206/2 between Wathar and Satara Road Stations tumbled down and the earthwork of the bridge approaches sunk. The pitching was repaired and the bank made up the same day.

On the same day three arches of the Mallur bridge at mile 246/12 between Chennapatna and Mudgeri Stations failed and the engine, one accident van and four third class carriages of No. 70 Down Mixed train were precipitated into the river which was in flood. The next carriage (a 2nd class) hung over the side of the pier, the lower end being partly submerged in water and the succeeding 1st class carriage hung a little over the gap. The driver and 2nd firemen of the train were drowned. Two other railway servants were killed and two injured, and out of the passengers 16 were killed and 16 injured. The rolling-stock was also considerably damaged.

On the 24th September a slip occurred in the cutting at mile 214 between Salpa and Wathar Stations on the west side of the line and No. 41 Up Mixed train was detained 1 hour and 46 minutes. The obstruction was removed the same day.

On the 27th September the Chitwadi main irrigation canal burst and the bank between the level-crossing at the east end of Hospet Station (mile $\frac{163}{22-23}$) and the 15 feet arch bridge were washed away. The earthwork at the dead end on the north-east side of the station yard for about 150 feet in length was carried away by the flood; and the whole of the station yard was 1½ feet under water. The line was restored on the 1st of October. During the interim passengers of Up and Down trains had to be transhipped.

On the 29th September the line at miles 127 to 128 and 154/2 between Minchnal and Nimbal and between Lachyan and Tadval stations was washed away. The road was rectified the same day.

On the 30th September stones slipped from the cutting at mile 215/4 between Wathar and Salpa Stations and blocked the line. The No. 35 Up Mixed was detained 40 minutes.

On the same day the line at mile 201/5 between Wathar and Satara Road Stations was washed away for about 10 rails in length. The line was repaired the same day.

On the 2nd October the embankment, as also the ballast at mile $\frac{154}{1-2}$ between Lachyan and Tadval Stations, were washed away for about 2 rails' length. They were repaired the same day.

On the 13th October the engine of 1 o'clock Up Goods train, 5 wagons, one brake van and a timber truck were derailed at mile 251/16 between Mudgeri and Maddur Stations owing to the line being damaged and ballast washed away at mile $\frac{251}{10-11}$ by flood which ran past the bridge over-topping the bank beyond. The line was restored the same evening. The rolling-stock was damaged. No one was injured.

On the 14th October at mile 208/9 near Yeshvantapur Station on the Mysore State Railway a boulder slipped from the top of the cutting and fell on to the line. The 110 Down Mixed train was detained 30 minutes in consequence. The obstruction was removed the same day.

On the 26th October the line at mile 27/18 and 28/2 near Yalvigi Station was completely washed away; the damage was made good the next morning.

BHAVNAGAR-GONDAL-JUNAGADH-PORBANDAR RAILWAY (*Metre Gauge*).

(Includes the Jetalsar-Rajkot and Jamnagar Railways.)

On the night of the 13th July 1897, heavy rain fell on the Jamnagar Railway, and, in consequence, the line at mileage 32/7—between Hadmatia and Wanthali Stations—became unsafe. No. 12 Up Mixed on the 14th was therefore not run. Owing to the banks being quite fresh they were more or less damaged during the rains, and from 17th July the train service was again resumed at reduced speed.

ODEYPORE-CHITORE RAILWAY (*Metre Gauge*).

MORVI RAILWAY (2′ 6″ *Gauge*).

RAJPIPLA STATE RAILWAY (2′ 6″ *Gauge*).

BARSI LIGHT RAILWAY (2′ 6″ *Gauge*).

HIS HIGHNESS THE GAEKWAR'S DABHOI RAILWAY (2′ 6″ *Gauge*).

These lines did not suffer through floods during the year.

Chapter V.—Stores and Rolling-stock.

(For the calendar year ending 31st December 1897).

GREAT INDIAN PENINSULA RAILWAY (*Standard Gauge*).

The stores balance on 31st December 1897 amounted to Rs. 40,25,354 inclusive of a sum of Rs. 4,24,122 representing value of stores in transit. The following are the principal items making up that balance :—

	Rs.
Permanent-way materials	8,46,652
Engines, locomotive and stationary, &c. ...	3,57,218
Metals	6,17,234
Fuel	3,57,138
Rolling-stock	5,31,421
Station materials	1,53,867
Timber	1,40,629
Bridge-work and fittings	62,018
Stationery	84,380
Tools	52,233
Oil, tallow, waste, varnishes, &c.	79,233
Miscellaneous	3,18,909
Stores in transit	4,24,122
Grand Total ...	40,25,354

The value of consignments received from England during the year amounted to Rs. 31,41,042, while stores to the value of Rs. 34,35,199 were purchased locally. The issues of the year were :—

	Rs.
To Construction account	1,31,897
To Revenue account	59,18,432
Sales, &c.	7,85,535

The decrease in the balance of stores in hand during the year was Rs. 2,59,623 This is due to write-off of Obsolete Stores to Revenue, and to the desire to use materials in hand, and to purchase or indent only for as much as is absolutely necessary. The increase of Rs. 3,64,795 in the balance of stores in transit consists chiefly of sleepers and rails, &c., for maintenance of the line, and of pairs of wheels and axles, &c., for replacing Cammel's axles which have failed or are likely to fail. The net increase in the balance of stores is Rs. 1,05,172.

The surplus working stock at 21st December 1897 amounted to Rs. 1,64,365 and obsolete stock to Rs. 1,77,932, and sales to the extent of Rs. 2,64,000 have since been sanctioned.

The state of the rolling-stock of the line on the last day of the year was as under :—

	Total Stock.	Undergoing or awaiting repair or renewal.	In actual running order.
Locomotives—			
Passenger, ordinary	118	28	90
Goods	371	78	293
Incline, special	74	15	59
Tank	42	9	33
Total, Locomotives ...	605	130	475

	Total Stock.	Undergoing or awaiting repair or renewal.	In actual running order.
Coaching Vehicles—			
First class, ordinary	90	9	81
Composite, first and second class, ordinary ...	64	11	53
Do. second and third do. ...	2	...	2
Second class, ordinary	157	15	142
Do. with postal accommodation ...	22	2	20
Third class without brakes, ordinary	526	59	467
Do. do. ambulance ...	29	3	26
Third class and brake-vans	115	12	103
Compound third class incline vans	...	...	...
Postal vans	7	...	7
Prison vans	6	...	6
Carriage trucks	50	...	50
Horse-boxes	93	2	91
Luggage vans...	90	6	84
Brake-vans	535	45	490
Total, Coaching Vehicles ...	1,786	164	1,622
Goods Vehicles—			
Covered goods wagons, ordinary, iron ...	912	51	861
Do. do. wooden ...	3,481	312	3,169
High-sided wagons, bogie, iron	50	8	42
Do. do. ordinary, wooden ...	217	51	166
Low-sided do. do. iron	1,267	80	1,187
Do. do. do. wooden ...	1,640	336	1,304
Pilot wagons	27	...	27
Powder vans	18	1	17
Timber trucks, iron	34	2	32
Do. do. wooden	157	21	136
Travelling water tanks	...	...	...
Do. gas-holders	8	...	8
Do. mineral oil tanks	5	2	3
Do. cranes	47	6	41
Total, Goods Vehicles ...	7,863	870	6,993

The numbers of locomotives and vehicles repaired and renewed during the year were as under :—

		First half.	Second half.	Total.
Locomotives	Repaired	160	147	307
	Renewed	7	10	17
Coaching vehicles	Repaired	782	911	1,693
	Renewed	40	40	80
Goods vehicles	Repaired	3,268	3,250	6,518
	Renewed	152	135	287

Of the total number of vehicles on the line, the following are adapted to military purposes :—

Fitted for ambulance purposes ...	29 third	class carriages.
Fitted with hooks or racks for rifles ...	59 second	do. do.
	109 third	do. do.
Horse-boxes capable of carrying 3 horses each	93	
Covered goods wagons adapted for carriage of 8 horses or 10 ponies each ...	1,508	
Covered goods wagons suitable for the carriage of 6 horses or 8 ponies each ...	372	
Medium or high-sided open goods wagons suitable for the carriage of artillery guns.	92	

The rolling-stock on the line fitted with brakes stood thus at the close of year:—

	Vacuum Automatic.	Simple Vacuum.	Steam.
Locomotives	180	190	3
Coaching vehicles	1,316	...	...

The whole of the coaching stock is fitted with screw couplings at both ends. Goods vehicles are fitted with those couplings at one end only and 4,643 was the number of goods vehicles so fitted at end of the year.

During the year, 245 vehicles were fitted with Pintsch's gas, making a total of 1,043 at the end of the year, and 220 vehicles with 12-ton wheels and axles.

In addition to the rolling-stock of the line detailed above, the Company possesses a $\frac{7}{16}$th share in the undermentioned East Indian and G. I. P. Railways Joint Stock employed in the through service between Calcutta and Bombay:—

Dining carriage, bogie	1
First class carriages	9
Second do.	8
Luggage vans	8
Mail vans	12
Total ...	38

The Railway Company has also got 4 engines for use as locomotive shunting engines, and 36 low-sided wagons, wooden, in charge of Locomotive Department at Parel.

Dhond and Manmad State Railway (*Standard Gauge*).

On 31st December 1897 the stores balance stood at Rs. 12,072:—

	Rs.
Balance on 31st December 1897	12,072
Do. do. 1896	12,072

There were no transactions during the year on account of stores on the Dhond and Manmad Railway. The balance of Rs. 12,072 on the 31st December 1897, consisting entirely of fencing material, will probably be utilized on works during the current year.

The Berar Railways (*Standard Gauge*).

On the 31st December 1897 the balances were as under:—

	Rs.
Khamgaon State Railway	...
Amraoti State Railway	6,387

During the year stores to the extent of Rs. 453 pertaining to the Khamgaon Railway were sold by public auction which has cleared the account.

There were no transactions on account of stores during the year on the Amraoti line. The balance of Rs. 6,387 consists entirely of permanent-way materials which are in the custody of the G. I. P. Railway Company, who are authorized to use them when required. The value of stores thus used for their own purpose is recovered from the Company and credited to the Capital Account of the Railway.

Wardha Coal State Railway (*Standard Gauge*).

There is no stores account on this railway.

B. B. & C. I. Railway (*Standard Gauge*).

The stores accounts closed on 31st December 1897 with a balance of Rs. 36,41,185, or Rs. 92,801 less than the balance at close of 1896, as shown below:—

	Rs.
Balance on 31st December 1896	37,33,986
Do. do. 1897	36,41,185
Decrease in 1897 ...	92,801

The transactions of the year 1897 were as follows :—

	Rs.	Rs.
Receipts—		
English stores	29,87,112	
Indian do.	32,03,395	
		61,90,507
Issues—		
On Capital account	17,32,355	
„ Revenue account	32,11,120	
„ Sales, &c.	13,39,833	
		62,83,308
Net Decrease as above ...		92,801

The net decrease of Rs. 92,801 is due chiefly to the issue of materials for doubling certain sections of the line and for the renewal of Warren girder bridges.

The principal items making up the balance on hand on 31st December 1997 were as under :—

	Rs.
Bridge-work	5,50,753
Permanent-way materials	6,62,220
Rolling-stock	6,40,892
Station materials and fencing	52,511
Metals	2,04,749
Timber	97,328
Fuel	5,67,273
Miscellaneous	5,55,976
Stores in the hands of Permanent-way Inspectors and Locomotive Foremen	64,663
Stores in transit from England	2,44,820

The rolling-stock on 31st December 1897 consisted of the following :—

	Total Stock.	Undergoing or awaiting repairs or renewals.	In actual running order.
Locomotives—			
Passenger, ordinary	34	4	30
Goods	98	18	80
Tank	3	2	1
Local traffic	12	2	10
Passenger and goods, mixed	15	1	14
Total, Locomotives ...	162	27	135
Coaching Vehicles—			
Saloons	10	...	10
Reserved carriages	8	1	7
First class	8	2	6
Composite, first and second	29	2	27
Second class	41	5	36
Intermediate class	22	4	18
Intermediate and postal	3	...	3
Third class	283	29	254
Third and postal	8	1	7
Luggage vans	16	3	13
Brake vans	28	6	22
Carriage trucks	4	...	4
Horse-boxes	15	5	10
Total, Coaching Vehicles ...	475	58	417

	Total Stock.	Undergoing or awaiting repairs or renewals.	In actual running order.
Goods Vehicles—			
Covered goods wagons	2,231	205	2,026
High-sided wagons	852	56	796
Low-sided wagons	574	13	561
Miscellaneous open wagons, military type ...	207	6	201
Pilot wagons	16	...	16
Salt wagons	150	2	148
Powder vans	6	...	6
Six-wheeled trucks	102	11	91
Timber trucks...	60	16	44
Travelling oil tanks	10	...	10
„ water tanks	15	2	13
Accident cranes	4	...	4
Brake vans	66	8	58
Total, Goods Vehicles ...	4,293	319	3,974

Of the above, the following are adapted for military purposes:—

Fitted for ambulance purposes	15 third class carriages.
Fitted with hooks or racks for rifles ...	4 composite. 22 intermediate class. 108 third class.
Horse-boxes capable of carrying six horses each.	15
Covered goods wagons adapted for the carriage of horses.	1,586 wooden wagons.
Open goods wagons suitable for the carriage of artillery.	258 high-sided wagons. 581 ballast or low-sided wagons.

The following are the principal additions and alterations, &c., during the year:—

Additions—

7 Bulk Oil Tank wagons.

Alterations—

2 third class, ordinary ... } altered to third class with mail compartments and
1 mail van ... ... } transferred accordingly.

2 covered wagons ... ... } altered to pilot wagons and transferred accordingly.
1 high-sided wagon ... }

80 low-sided wagons, iron, altered to ballast wagons.

1 Saloon carriage altered to Reserved Saloon.

1 Postal van altered to third class and postal van.

His Highness The Gaekwar's Petlad Railway (*Standard Gauge.*)

The stores balance on 31st December 1897 stood at Rs. 11,464, and it consisted of the following items:—

	Rs.
Switches, complete	572
Sleepers, steel	6,327
Rails, steel	3,505
Miscellaneous stores	1,060

There is no rolling-stock on this line, as it is supplied by the Bombay, Baroda and Central India Railway.

Nagda-Ujjain Railway (*Standard Gauge*).

There is no stores account on this line which is worked by the B. B. & C. I. Railway.

H. H. The Gaekwar's Dabhoi Railway (2′ 6″ *Gauge*).

The stores account closed on 31st December 1897 with a balance of Rs. 24,609, or Rs. 5,817 less than the balance at close of 1896 as under:—

	Rs.
Balance on 31st December 1896	30,426
Do. do. 1897	24,609
Net decrease ...	5,817

The balance on 31st December 1897 consisted of the following :—

	Rs.
Ferrules, steel	4,873
Rails, steel	9,734
Springs, helical, for safety chains	1,331
Tyres, steel	5,389
Miscellaneous stores	3,282

The rolling-stock on 31st December 1897 consisted of the following :—

	Total Stock.	Undergoing or awaiting renewal or repairs.	In running order.
Locomotives	8	3	5
Coaching vehicles—			
State saloons	2	...	2
Cooking carriage	1	...	1
Upper class bogies	4	...	4
Lower class	13	...	13
Do. bogies	14	...	14
Brake vans, do.	2	...	2
Total, Coaching Vehicles ...	36	...	36
Goods Vehicles—			
Open wagons	137	4	133
Covered wagons	30	...	30
Timber trucks...	6	...	6
Low-sided wagons, bogie	36	...	36
Trucks for carriage of boilers, bogie	2	...	2
Brake vans	6	...	6
Total, Goods Vehicles ...	217	4	217

1 upper class carriage was altered to lower class.
2 upper class carriages renewed as one upper class bogie.
4 open wagons with roofs and 4 open wagons were renewed as low-sided wagons, bogie.

The above stock is not adapted for military purposes.

Rajputana-Malwa Railway System (*Metre Gauge*).

The store balances, including Godhra-Rutlam-Nagda Railway (standard gauge) on 31st December 1897, compare with those on 31st December 1896 as under :—

	1896.	1897.	Difference.	
			Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
Purchases	—65,543	—1,55,111	—89,568	.....
Sales	24,209	18,407	.....	5,802
Stores, general	23,08,577	19,03,325	.....	4,05,252
Stores, stationery and forms ...	94,773	81,670	.....	13,103
Stores in transit	—15,470	12,650	28,120	.....
Stock-adjusting account	—13,108	—238	.....	—12,870
Stock-taking	—626	.....	.....	—626
Stores, locomotive	19,53,917	13,25,572	.....	6,28,345
London stores	20,649	54,166	33,517	.....
London invoices	—7,783	7,690	15,473	.....
Manufacture	—353	—217	.....	—136
Workshop manufacture	12,428	26,150	13,722	.....
Total ...	43,11,670	32,74,064	1,264	10,38,870
Net Decrease ...	.....	.....	.....	10,37,606

Purchases.—The increase is due to more bills remaining unpaid at end of 1897.

Sales.—The decrease is due to less sales during the year.

General Stores.—The decrease is due to less stores purchased during the year.

Stores, Stationery and Forms.—The decrease is due to obsolete forms written off during the year and also to issues to lines under construction.

Stores in Transit.—The increase is due partly to debit for cost of Rutlam-Nagda Railway stores reserved for Tapti Valley Railway, and partly to a great number of items remaining outstanding in 1897.

Stock-adjusting Account.—The decrease is due to loss on stores written off during the year.

Stock-taking.—The decrease is small, and calls for no explanation.

Stores, Locomotive.—The decrease is due to more issues of stores and coal.

London Stores.—The increase is due to more payments made during the year.

London Invoices.—The increase is due to stores paid for but not received during the year.

Manufacture.—The decrease is small, and calls for no explanation.

Workshop Manufacture.—The difference is chiefly due to an increase in the balance under uncompleted orders.

Details of the difference between the general books and the priced stores ledgers on 31st December 1897 are given below :—

Dr. *Cr.*

Particulars.	Amount.			Particulars.	Amount.		
	Rs.	a.	p.		Rs.	a.	p.
Minor differences	32	5	0	Difference between general stores priced ledger and balance sheet	1,911	12	10
Stock-adjusting account ...	237	13	11	Loss on stores scrapped ...	13,107	0	1
Total difference between general books and priced stores ledgers	2,12,737	13	5	Stores in hand of Engineers .	41,959	12	8
				Value of stores standing at debit of vendors' account ...	1,25,205	7	0
				Auction sale, Ajmere depôt ...	13,567	12	9
				Stores in transit	12,649	12	10
				Difference between locomotive books and account current	4,606	6	2
Total ...	2,13,008	0	4	Total ...	2,13,008	0	4

The rolling-stock on 31st December 1897 was as under :—

	Total Stock.	Undergoing or awaiting repairs or renewal.	In actual running order.
Locomotives—			
Mail, special	35	6	29
Passenger, ordinary	110	25	85
Goods	252	73	179
Local traffic, shunting and ballast	29	5	24
Total, Locomotives ...	426	109	317

	Total Stock.	Undergoing or awaiting repairs or renewal.	In actual running order.
Coaching Vehicles—			
Saloons, State	6	...	6
Inspection	11	1	10
First class	116	12	104
Composite, first and second class, ordinary ...	49	6	43
Do. do. bogie ...	1	...	1
Second class	99	15	84
Composite, second and third class	7	2	5
Intermediate class	50	7	43
Composite, intermediate and third class ...	25	5	20
Third class, ordinary	611	50	561
Do. bogie	59	9	50
Do. ambulance	5	...	5
Third class with brakes, ordinary	98	9	89
Third class and postal vans	24	...	24
Intermediate and postal vans	8	...	8
Brake vans	274	17	257
Brake vans and postal	8	8	...
Carriage trucks	38	2	36
Luggage vans, ordinary	19	1	18
Do. bogie	12	...	12
Horse-boxes	82	8	74
Miscellaneous	7	...	7
Total, Coaching Vehicles ...	1,609	152	1,457
Goods Vehicles—			
Covered wagons, ordinary...	3,831	208	3,623
Do. bogie	435	33	402
High-sided wagons, ordinary	134	11	123
Medium-sided wagons	150	1	149
Low-sided wagons, ordinary	1,113	39	1,074
Do. bogie	1,180	41	1,139
Powder vans	35	3	32
Accident vans...	15	1	14
Timber trucks...	79	2	77
Store van	1	...	1
Oil-tank wagons	8	...	8
Travelling cranes	29	...	29
Total, Goods Vehicles ...	7,010	339	6,671

Of the above the following are adapted for military purposes :—

Fitted for ambulance purposes ...	5 third class carriages, ordinary. 21 do. do. bogie.
Fitted with racks for rifles ...	2 composites, first and second class. 2 second class. 8 intermediate class. 7 composites, intermediate and third class. 147 third class, ordinary. 59 do. bogie. 24 combined third class and Post Office vans.
Horse-boxes capable of carrying 4 horses each	82
Covered goods wagons adapted for the carriage of horses	108 wagons carrying each 6 C. B. horses, 10 ponies or mules. 102 wagons carrying each 4 waler horses, 6 C. B. horses, 10 ponies or mules.

High-sided wagons adapted for the carriage of horses.	134 wagons carrying each 9 ponies or mules.
Open goods wagons suitable for the carriage of artillery.	1,944 ballast or low-sided wagons.

One M Class Engine has been built and 16 N Class Engines have been sold to the Mombassa-Uganda Railway, while the following alterations have been made in the number of coaching and goods vehicles:—

Coaching vehicles—

8 First class carriages converted 4 into composite first and second class carriages and 4 into second class carriages.

11 third class carriages built and 8 third class converted into third class and postal vans.

Goods vehicles—

40 ordinary covered goods wagons replaced by 20 bogie covered goods wagons.

100 low-sided wagons, ordinary, sold to the Mombasa-Uganda Railway.

Palanpur-Deesa Railway (*Metre Gauge*).

H. H. The Gaekwar's Mehsana Railway (*Metre Gauge*).

There are no stores on these lines, which are worked by the Rajputana-Malwa Railway with its own rolling-stock.

Oodeypore-Chitor Railway (*Metre Gauge*).

This line has been constructed by the Meywar Darbar and was opened for traffic on the 1st August 1895. It was worked by the Rajputana-Malwa Railway up to 31st December 1897. Information as regards the stores transactions of the line during the year is not available.

Ahmedabad-Prantij Railway (*Metre Gauge*).

This line, 54·59 miles in length, was opened for traffic during the year and is worked by the Rajputana-Malwa Railway. There was a balance of stores amounting to Rs. 23,108 representing construction stores remaining unused and awaiting disposal on 31st December 1897.

Tapti Valley Railway (*Standard Gauge*).

This line is under construction and its store balances on 31st December 1897 amounted to Rs. 9,52,217 as follows:—

	Rs.
Purchases	3,47,504
Sales	1,455
Stores in depôt	4,68,165
Stores in transit	1,35,093
	9,52,217

Southern Mahratta Railway System (*Metre Gauge*).

The stores transactions for the year under report were as follows:—

	Rs.	Rs.
Balance on 1st January 1897	.....	.....
Southern Mahratta, Mysore State and Bellary-Kistna Railways ...	20,84,338	
Bangalore-Hindupur Railway ...	877	
		20,85,215
Receipts during the year	...	17,98,964
	Total ...	38,84,179
Issues during the year	...	19,20,841
Balance on 31st December 1897	...	19,63,338

	Rs.
Southern Mahratta, Mysore State and Bellary-Kistna Railways... ...	19,60,132
Bangalore-Hindupur Railway ...	3,206
	19,63,338

There were no stores on the Guntakal-Mysore Frontier, the Kolhapur State and on the Nanjangud Extension Railways.

The principal items making up the balance on hand on 31st December 1897 were :—

	Rs.
Bridge-work	1,066
Engineers' plant	25,075
Workshop machinery	15,059
Ballast and permanent-way	2,91,706
Rolling-stock	7,17,509
Station materials and fencing ...	85,644
Tools and stores	8,17,764
Amount under adjustment	6,309
	19,60,132
Bangalore-Hindupur Railway ...	3,206
	19,63,338

The decrease in the stores balance during the year was Rs. 1,21,877. This is made up of decreases in the balances under all the heads, except Ballast and Permanent-way, under which there is an increase of Rs. 42,369, being chiefly the value of sleepers purchased for renewals but not issued during the year.

The additions to stock during the year consisted of :—

	Rs.	
English supplies	4,75,720	
Indian purchases	12,07,069	
Returned stores	27,184	
Manufactures in shops	76,846	
Purchases from other railways	9,816	
	17,96,635	
Bangalore-Hindupur Railway	2,329	
		17,98,964

The issues during the same period were :—

	Rs.
On Capital Account, Southern Mahratta Railway ...	7,18,249
„ Revenue do. do. ...	11,80,801
„ Sales, &c.	21,791
„ Bangalore-Hindupur Railway	.....
	19,20,841

The description of stores imported on indents from England is as detailed below :—

Steel tyres.	Red and white lead.
Files.	Glassware.
Steel and fish plates.	Twist drills.
Turpentine.	Turret lathes.
Copper.	Steel rails.
Smithy coal.	Blank card tickets.
Wrought iron.	Paints.
Window fittings.	Varnish.
Fittings for buffers.	Gas plant.
Driving cranks.	

The rolling-stock of the line on the last day of the year was constituted as under :—

SOUTHERN MAHRATTA RAILWAY.

Locomotives	178
Coaching vehicles	719
Goods do.	4,009

MYSORE STATE RAILWAY.

Locomotives	42
Coaching vehicles	193
Goods do.	695

The number of locomotives and vehicles repaired and renewed during the half-year was as detailed below :—

Descriptions.	Repaired during the half-year.	Renewed during the half-year.	Undergoing or awaiting repairs on the last day of the half-year.	Undergoing or awaiting renewals on the last day of the half-year.
Southern Mahratta Railway.				
Locomotives	41	...	32	...
Coaching vehicles	210	...	120	11
Goods do.	388	1	205	18
Mysore State Railway.				
Locomotives	11	...	4	...
Coaching vehicles	49	...	35	2
Goods do.	77	...	32	2

The vehicles adapted to military purposes were :—

SOUTHERN MAHRATTA RAILWAY.

Coaching vehicles fitted for ambulance purposes	*Nil.*
Coaching vehicles fitted with hooks or racks for rifles...	47½ second class. 242¾ third class.
Horse-boxes capable of carrying four horses	28
Covered goods wagons adapted for carriage of horses	100 iron.
Open goods wagons suitable for carriage of artillery guns	111 medium or high-sided wagons. 424 ballast or low-sided wagons.

MYSORE STATE RAILWAY.

Coaching vehicles fitted for ambulance purposes	3 third class.
Coaching vehicles fitted with hooks or racks for rifles	13½ second class. 55 third class.
Horse-boxes capable of carrying four horses	8
Covered goods wagons adapted for carriage of horses	*Nil.*
Open goods wagons suitable for carriage of artillery guns	*Nil*, medium or high-sided wagons. 75 ballast or low-sided wagons.

Brakes.

No automatic vacuum brakes have been fitted to rolling-stock nor have any additional vehicles or locomotives been fitted with Westinghouse brakes during the year. The numbers previously fitted are :—

Locomotives	3
Coaching vehicles	19

Couplings.

The whole of the rolling-stock is being fitted with Jones' buffers and couplings.

Lighting of carriages on Pintsch's Gas System.

Part of the plant indented for, to introduce this system of lighting, has been received and is being fitted up.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY (*Metre Gauge*).

(Includes the Jetalsar-Rajkot and Jamnagar Railways).

The statement below shows the transactions of the Stores Department :—

	Rs. a. p.	Rs. a. p.
Balance on 1st January 1897	.....	2,64,834 12 2
Receipt during 1897—		
Purchase in India	7,80,958 11 5	
Do. England	4,9297 13 3	
		8,30,256 8 8
Total Receipts ...	.....	10,95,091 4 10
Issues during 1897—		
Capital	4,59,201 15 7	
Revenue	2,76,016 14 9	
Sales	74,382 11 3	
Total Issues ...	.....	8,09,601 9 7
Balance on 31st December 1897	.....	2,85,489 11 3

Particulars of sales were as follows :—

Rs.	a.	p.		
42,462	0	11	for coal, and	to Morvi Railway.
5,516	13	11	for timber	
7,735	5	11	permanent-way materials	to Jamnagar Railway.
2,477	14	1	coal and	
7,988	1	0	other miscellaneous stores	
4,999	5	0	for old steel sleepers	to the public.
3,203	2	5	for other miscellaneous stores	

Details on balance on hand on 31st December 1897 :—

	Rs. a. p.
General stores	1,82,459 13 2
Locomotive stores	92,261 13 6
Forms and stationery	10,768 0 7
Total ...	2,85,489 11 3

The principal items of stores comprising the balance in the Magazine were :—

	Rs. a. p.
Bridge-work	1,455 0 10
Engineers' plant	15,181 5 1
Workshop machinery and heavy tools ...	2,039 7 11
Ballast and permanent-way	81,870 11 9
Locomotive duplicates...	34,043 1 3
Coaching and goods stock	19,971 1 9
Station materials and fencing	6,439 5 1
Tools and stores	21,459 11 6
Total ...	1,82,459 13 2

Out of Rs. 1,82,459-13-2, the total value of stores in the Magazine, Rs. 38,406-9-11 represents the value of depreciated or second-hand stores.

Rs. 92,261-13-6 of locomotive stores consists of stores as below :—

	Rs.	a.	p.
Carriage and wagon material	2,352	3	0
Metals	1,543	0	0
Timber	10,467	10	11
Coal and coke	74,449	11	10
Petty and miscellaneous stores	3,449	3	9
Total ...	92,261	13	6

Out of Rs. 10,768-0-7 on account of forms and stationery, Rs. 7,964-12-7 represents the value of forms and books and Rs. 2,803-4-0 of stationery.

During the year the following departments returned stores to the Magazine above Rs. 100 :—

	Rs.	a.	p.
Engineernig Department	7,088	8	5
Locomotive and Carriage Department ...	10,983	15	8

The principal items of stores returned to the Magazine by the Engineering Department were :—

	Rs.	a.	p.
Engines, portable	2,234	0	0
Boilers, tongies	1,630	0	0
Carriage iron sheets	754	0	0
Rails, steel	673	3	0
Points and crossings	513	0	0
Sleepers, steel	497	0	0
Earthenware pipes	362	0	0

Morvi Railway (2′ 6″ *Gauge*).

Three bogie third class 30 feet long with three compartments capable of arrying 46 passengers and 1 bogie compo. 1st and 2nd class 28 feet long were onstructed during the year.

Compo. Nos. 3, 4 and 5 were converted into 3rd class. Bogie 1st class Nos. 1 and 2 into compo. 1st and 2nd class, and bogie No. 156 into mail van, 2nd and 3rd class.

One bogie brake van 24 feet and two 3rd class 16 feet was under construction.

Twenty-one carriages and eleven wagons passed through the shops and underwent thorough repairs.

Nos. 3, 7 and 8 locomotives underwent thorough repairs, wheels and axles being renewed and smoke boxes lengthened.

Nos. 5, 9 and 10 underwent general repairs.

Both officers' carriages were repaired and painted.

Barsi Light Railway (2′ 6″ *Gauge*).

Automatic vacuum brakes have not been introduced on this Railway. The coaching stock on the line has been fitted with Pintsch's gas apparatus, but gas lighting has not yet been introduced.

Chapter VI.—Capital Transactions.

(For the calendar year ending 31st December 1897.)

G. I. P. Railway (*Standard Gauge*).

At the end of the year, the capital authorised and subscribed was as under, the changes being the conversion of 3¼ per cent. debentures amounting to

£1,002,100 into an equal amount at 2½ per cent. and the creation of 2½ per cent. debentures to the extent of £300,000, the discount involved in the transaction being £5,010-10-0:

	£	Rs.
Authorised Capital—		
Share Capital	20,000,000	
Debenture Stock	6,666,666	
Total ...	26,666,666	= 29,09,09,084
Subscribed Capital—		
5 per cent., Share Capital	20,000,000	
4 do. Debenture Stock	2,701,450	
3 do. Debentures	1,068,800	
2¾ do. do.	300,000	
2½ do. do.	1,602,100	
Total Interest-bearing Capital ...	25,672,350	
Add—		
Capital not bearing interest—		
Premia on Share Capital and Loans ... £233,245		
Transferred from Casualty Fund ... 74,187		
307,432		
Less— £		
Discount on Loans ... 21,376		
Do. on Debenture Stock . 225,891		
247,267		
	60,165	
Total Capital paid into Treasury	25,732,515	=28,07,18,345
Capital Expenditure—		
On Construction Account	25,262,986	=27,55,96,213
On Stores in Suspense	368,991	= 40,25,353
	25,631,977	=27,96,21,566
Less—		
Credit balance of advances in Suspense ...	30,796	= 3,35,955
Total ...	25,601,181	=27,92,85,611
Balance available of—		
Authorised Capital	1,065,485	= 1,16,23,473
Subscribed do.	131,334	= 14,32,734

The following table gives the detail of capital expenditure on final heads of account:—

	During 1897.	To end of 1897.
	Rs.	Rs.
Preliminary expenses	.....	2,72,727
Establishment charges	.....	40,35,134
Engineering and surveying expenses	436	1,47,61,482
Law charges	.....	2,04,577
Stations and buildings	1,34,573	3,55,29,168
Commission on loans	.....	4,89,815
Passages to Bombay	.....	4,76,509
Permanent-way	28,529	6,63,96,741
Works	79,156	10,73,83,217
Electric telegraph	.....	17,66,926
Locomotive and carriage and wagon expenses ...	72,643	4,42,79,917
Total, Final Heads ...	3,15,337	27,55,96,213
Stores Suspense Account	1,05,172	40,25,353
Advances in Suspense	Cr. 1,64,071	Cr. 3,35,955
Total, Final and Suspense Heads ...	2,56,438	27,92,85,611

The individual capital works, on which the expenditure during the year amounted to Rs. 20,000 or more, were as follows:—

	Expenditure of the year.
	Rs.
Fitting Company's trains with Pintsch's lighting apparatus...	25,750
Fitting Company's Coaching stock with automatic vacuum brakes	26,640
Joint bogie stock with East India Railway	23,039
Dudhi bridge—Partial reconstruction	22,509
Mund viaduct—Rebuilding tops of piers, &c.	80,394

The interest charges paid for 1897 compare as follows with the net earnings of that year:—

	Rs.
Interest on share capital at 5 per cent.	1,09,09,091
Do. Debenture Stock at 4 per cent.	11,78,815
Do. Debentures at 3¼ „	1,77,645
Do. do. at 3 „	3,49,789
Do. do. at 2¾ „	90,000
Do. do. at 2½ „	2,91,880
Total, Interest ...	1,29,97,220
Net earnings of the year less rent of leased lines, contribution to Provident Fund, interest on overdrawn Capital and writes-off of irrecoverable outstandings to 17th March 1898	93,77,701
Excess of interest charges over net earnings ...	36,19,519

Dhond and Manmad and Wardha Coal State Railways (*Standard Gauge*).

The expenditure of the year 1897 was:—

	Rs.
Dhond and Manmad State Railway	33,484
Wardha Coal State Railway	20

and was incurred on the following heads:—

	Dhond and Manmad Ry.	Wardha Coal Ry.
	Rs.	Rs.
Land	—172	...
Bridge-work	13,985	...
Fencing	180	...
Ballast and permanent-way	1,642	...
Stations and buildings	17,849	20
General charges	...	...
Suspense	...	...
Total ...	33,484	20

The total expenditure from commencement of operations to end of 1897 was as under:—

	Dhond and Manmad Ry.	Wardha Coal Ry.
	Rs.	Rs.
Expenditure in England	44,28,718	9,47,839
Do. in India	69,77,816	40,48,486
Total ...	1,14,06,534	49,96,325

The Berar State Railways (*Standard Gauge*).

Khamgaon Railway.—The capital outlay during the year was reduced by Rs. 453 on account of the disposal of stores by auction.

Amraoti Railway.—There was an expenditure of Rs. 1,326 which was incurred on ballast and permanent-way.

The total capital cost of these lines from commencement of operations to end of 1897 was as under :—

	Rs.
Khamgaon State Railway	5,22,150
Amraoti State Railway	4,52,445

B. B. AND C. I. RAILWAY (*Standard Gauge*).

The capital subscribed during the year was reduced by £1,000 or Rs. 10,909, and it is due to the withdrawal in May 1897 on account of discount on renewal of debenture bonds of £100,000 from 3¼ per cent. to 2½ per cent. With this reduction the subscribed capital stood on 31st December 1897 at £9,516,768 or Rs. 10,38,19,287.

The Capital Account on 31st December 1897 was as follows :—

	£	£	Rs.
Capital authorised—			
Share Capital	6,250,000		
Debenture bonds	4,463,500		
		10,713,500	= 11,68,74,540
Capital subscribed—			
Share Capital	6,250,000		
Debenture bonds converted into stock ...	1,300,300		
Do. at 3¼ per cent. ...	788,500		
Do. at 3 „ ...	300,000		
Do. at 2½ „ ...	849,400		
Capital not bearing interest	28,568		
		9,516,768	= 10,38,19,287
Capital Expenditure—			
On construction account		9,415,978	= 10,27,19,759
„ Stores in Suspense		333,775	= 36,41,185
„ Advances in Suspense		Cr. 4,650	= Cr. 50,724
		9,745,103	= 10,63,10,220
Balance available of—			
Capital authorised		968,397	= 1,05,64,325
Capital subscribed		Cr. 228,335	= Cr. 24,90,933

The following table gives details of the Capital Expenditure on final heads of account :—

Heads.	During 1896.	To end of 1896.
	Rs.	Rs.
Preliminary expenses (England)	.....	1,88,733
Engineering and surveying (England)	.....	2,48,415
Establishment charges (do.)	.....	8,80,918
Payments in England on account of officers in India, including passages and travelling expenses	.....	5,94,417
Construction, plant and workshop	.....	77,61,917
Earthwork and ballasting...	4,27,488	97,55,362
Electric telegraph	.....	43,803
Fencing	8,747	13,29,392
General charges	.....	76,65,633
Great Indian Peninsula Railway, Máhim Branch purchase account	.....	67,000
Iron bridges	5,14,556	1,65,38,496
Level-crossings	9,873	3,77,195
Masonry bridges and culverts	53,439	54,72,279
Permanent-way	13,39,365	2,40,14,367
Roads	.....	74,764
Rolling-stock and machinery	73,425	1,79,80,202
Stations and bungalows	4,38,865	95,22,594
Dhejbara survey	.....	3,003
Patri line (Company's proportion)	.....	1,51,606
Wadhwan joint works accounts	.....	27,984
Sahibagh water-works joint account	.....	21,679
Total, Final Heads ...	28,65,758	10,27,19,759

The individual works on which heavy expenditure was incurred during the year were :—

	Rs.
New administrative office at Church Gate	2,37,564
Double line between Virar and Palghar	1,25,450
Do. do. Palghar and Dhanu	2,19,089
Do. do. Dhanu and Sachin	1,47,952
Do. do. Amroli and Itola	12,88,955
Raising the rail level of the Ambica bridge	21,980
Joint goods transhipment station at Asarwa	54,771
Permanent repairs to certain portion of the line damaged by flood ...	57,462
Renewal of Warren Girder bridges	4,00,957
Seven broad gauge oil tank vans for the carriage of mineral oil	24,282

The total capital bearing interest to end of 1897 was Rs. 10,35,07,636 and the guaranteed interest due to the Company during 1897 was Rs. 47,29,786 as under :—

	Rs.
Paid in England	47,28,642
Paid in India	1,144
Total ...	47,29,786

Rs. 42,393 accrued during the year as interest on overdrawn capital.

The net earnings of the year amounted to Rs. 65,35,557.

H. H. The Gaekwar's Railways.

The expenditure during 1897 is exhibited in the following table :—

Particulars.	Dabhoi Railway (2' 6" gauge).	Petlad Railway (Standard gauge).	Mehsana Railway (Metre).
	Rs.	Rs.	Rs.
Preliminary expenses	—53	.....	.....
Formation	4,609	2,210	279
Bridge-work			418
Fencing			745
Ballast and permanent-way	66,038	10,948	—2,036
Stations and buildings	6,860	17,740	— 513
Electric telegraph	63	.....	.....
Plant	425	.....	.....
Rolling-stock	.....	.....	.....
General charges	2,754	76	3,560
Suspense	—46,878	1,679	.....
Total ...	33,818	32,653	2,453

The total capital outlay, including suspense, from commencement of operations to end of 1897 was as follows :—

	Rs.
Dabhoi Railway	21,08,574
Petlad do.	7,55,769
Mehsana do.	32,63,900

Note.—Expenditure on surveys of new lines has been omitted.

Rajputana-Malwa Railway and Palanpur-Deesa Railway (*Metre Gauge*).

Godhra-Rutlam-Nagda Railway (*Broad Gauge*).

The total capital outlay on the whole system, including the Palanpur-Deesa and Godhra-Rutlam-Nagda Railways, during and to end of 1897, was as follows :—

Heads of Account.	Rajputana-Malwa Railway System.		Godhra-Rutlam-Nagda Railway.		Palanpur-Deesa Railway.	
	During 1897.	To end of 1897.	During 1897.	To end of 1897.	During 1897.	To end of 1897.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Preliminary expenses	114	22,71,496	.....	1,80,184	...	1,973
Land	11,732	13,33,749	—2,796	28,559	...	...
Formation	1,153	72,77,678	29,080	60,08,181	...	64,414
Bridge-work	2,643	2,16,20,387	995	41,32,972	...	59,429
Fencing	98,413	29,58,436	7,081	2,73,851	500	10,037
Electric telegraph	.....	.....	.....	4,065	...	...
Ballast and permanent-way... ...	5,879	3,72,03,110	45,121	46,79,247	...	2,09,667
Stations and buildings	1,23,765	1,83,25,668	711	13,08,315	28	51,175
Plant	38,525	30,55,085	.....	56,708	...	6,672
Rolling-stock...	—12,197	2,14,32,933	.....	.....	...	...
General charges	.....	83,33,216	8,916	7,84,179	—10	14,897
Loss by exchange	.....	49,08,971	.....	.....	...	...
Suspense	—11,16,998	32,74,064	—99,431	.....?	...	...
Total Direct Outlay ...	—8,46,971	13,19,94,793	—10,323	1,74,56,261	518	4,18,264
Indirect Outlay ...	.....	17,86,415	.....	.....	...	...
Grand Total ...	—8,46,971	13,37,81,208	—10,323	1,74,56,261	518	4,18,264

The capital expenditure during 1897, including suspense, on the Rajputana-Malwa Railway system proper was incurred on the—

	Rs.
Rajputana-Malwa Railway	—9,93,912
Holkar Railway...	36,072
Rewari-Ferozepore Railway	43,806
Cawnpore-Achnera Railway...	67,053
Total ...	—8,46,971

The principal individual works on which expenditure was incurred during the year were—

Rajputana-Malwa Railway.

	Rs.
Additions and alterations at Bandikui station ...	8,215
Third class passenger waiting shed at Ajmere ...	5,394
Works required for new arrangements at Ujjain Junction Station	34,781
Fencing 10 miles of line on the Sindia-Neemuch Section.	19,832
Institute at Rutlam	5,960
Fencing 9½ miles of main line on the Ajmere Division...	8,927
Additional siding accommodation at Sabarmati ...	17,674
Additions and alterations to the metre gauge goods shed and lines at Ahmedabad	10,323
Gangmen's quarters on the Abu Division	9,384
Additional machinery required for the locomotive shops at Ajmere	32,725
Building 40 additional bogie 3rd class carriages ...	73,264
Fitting the remaining goods vehicles with flexible buffers and screw couplings	21,589
Building 30 brake vans single unit and 10 combined bogie brake vans and 3rd class carriages	21,712
Building 41 bogie 3rd class carriages	20,979
Eighty-two iron covered goods wagons, 29 feet long with brake compartment	12,223

Godhra-Rutlam-Nagda Railway.

Earthwork (general)	27,321
Ballasting main line.	30,586
Law charges in connection with the suit by Wand and Vishnu, Contractors	5,000
Replacement of deodar sleepers between miles 122-123 by steel sleepers	7,947

Holkar State Railway.	Rs.
52 units menials' and 20 units superior menials' quarters for Locomotive and Traffic staff at Mhow ...	8,134
House for the Executive Engineer at Mhow ...	7,713
Additions and alterations to Locomotive yard at Mhow .	6,226
Rewari-Ferozepore Railway.	
Fencing 18·95 miles of line	30,054
Water-supply arrangements at Bhiwani	9,486
Cawnpore-Achnera Railway.	
Fencing 15 miles of line	28,501
New works required at Cawnpore in consequence of the entry of the Cawnpore-Lucknow-Gogra Railway ...	37,593
Extending the existing siding at Hathras City into cotton presses at Hathras	5,479

Nagda-Ujjain Railway (*Standard Gauge*).

This line was opened on the 15th July 1896. It has been constructed from funds supplied by the Gwalior Darbar. The capital outlay to end of 1897 was as follows :—

	Rs.
Preliminary expenses	1,0938
Land	...
Formation	1,77,042
Bridge-work	4,56,296
Fencing	11,388
Electric telegraph	603
Ballast and permanent-way	13,33,832
Stations and buildings	61,063
Plant	1,228
General charges...	1,67,529
Total ...	22,19,919

Oodeypore-Chitor Railway (*Metre Gauge*).

Statements showing the capital outlay on the line have not been furnished by the Meywar Darbar.

Ahmedabad-Parantij Railway (*Metre Gauge*).

This line, 54·59 miles in length, has been constructed from capital of an Indian Railway Company and was opened for traffic during the year. The capital outlay to 31st December 1897 was as follows :—

	Outlay incurred by the B. B. & C. I. Railway.	Outlay incurred by Messrs. Killick, Nixon & Co.	Total.
	Rs.	Rs.	Rs.
Preliminary expenses	6,704	57,354	64,058
Formation	1,33,895	1,873	1,35,768
Bridge-work	2,78,983	.....	2,78,983
Fencing, &c.	21,497	.....	21,497
Electric telegraph	1,567	.....	1,567
Ballast and permanent-way	10,19,830	.....	10,19,830
Stations and buildings	1,81,723	.....	1,81,723
Plant	16,328	.....	16,328
General charges	1,48,417	10,647	1,59,064
Interest to shareholders	.....	38,489	38,489
Do. on loan	.....	1,797	1,797
Total ...	18,08,944	1,10,160	19,19,104
Stores	23,108	.....	23,108
Total, Capital Outlay ...	18,32,052	1,10,160	19,42,212

Tapti Valley Railway (*Standard Gauge*).

This line is being constructed from capital of an Indian Railway Company. The capital outlay incurred by the B. B. & C. I. Railway up to 31st December 1897 was as follows:—

	Rs.
Preliminary expenses	85,033
Formation	3,06,386
Bridge-work	1,48,092
Fencing	838
Ballast and permanent-way	3,24,363
Stations and buildings	33,470
Plant	284
General charges	2,29,945
Total ...	11,28,411
Deduct—	
Receipts on Capital account	461
Total ...	11,27,950
Suspense accounts	9,68,344
Total, Capital Outlay ...	20,96,294

Southern Mahratta Railway (*Metre Gauge*).

At the end of the year the capital authorised and subscribed was as under, an addition of £100,000 being made to the capital by the issue of 2½ per cent. debentures for 7 years from 1st April 1897, at a discount of ¾ per cent.:—

	£	Rs.
Authorised Capital—		
Stock and Share Capital	3,500,000	
Debenture stock	1,043,100	
Total ...	4,543,100	5,55,17,200
Subscribed Capital—		
3½ per cent. share Capital	3,500,000	
3¼ do. debenture stock ...	688,100	
3 do. do. ...	255,000	
2½ do. do. ...	100,000	
Total interest-bearing Capital ...	4,543,100	
Capital not bearing interest—		
Premia on shares	30,957	
Total ...	4,574,057	5,59,50,592
Less—		
Discount on debenture stock ...	750	9,000
Total ...	4,573,307	5,59,41,592
Add—		
Advances by Secretary of State ...	2,129,900	2,55,58,800
Bellary-Kistna Railway—		
Government expenditure account ...	1,184,172	1,65,78,416
Total received to 31st December 1897...	7,887,379	9,80,78,808
Capital Expenditure—		
On construction account	7,640,264	9,51,13,422
On stores and suspense account ...	171,145	20,53,742
Less—		
Share of joint store balances on 31st December 1897 chargeable to Mysore State Railway	37,861	4,54,327
Total ...	7,773,548	9,67,12,837
Balance of Capital available for expenditure	113,831	13,65,971

Mileage open—1,042·04 miles.

The following table gives the detail of expenditure on final heads of account :—

	During 1897.	To end of 1897.
	Rs.	Rs.
Preliminary expenses	.....	10,90,895
Land	21,600	11,60,153
Formation	22,970	1,91,47,324
Bridge-work	3,781	1,86,10,463
Fencing, &c.	9,469	15,15,677
Electric telegraph	.....	.....
Ballast and permanent-way ...	61,400	2,16,60,546
Stations and buildings	2,73,513	1,14,41,397
Plant	75,229	28,92,315
Ferries, &c.	.....	.....
General charges	2,425	65,04,346
Rolling-stock	1,33,223	1,05,99,216
Loss by exchange	.....	4,91,090
Total, Final Heads ...	6,03,610	9,51,13,422
Stores and Suspense Accounts ...	23,583	15,99,415
Total, Final and Suspense Heads ...	6,27,193	9,67,12,837

The following were some of the principal capital works on which expenditure was incurred during the year :—

	Rs.
Land	21,600
Crossing stations	65,000
Goods siding, Tadepalli	22,000
Alteration to signals	6,600
Extension of the Locomotive shops, Hubli ...	72,000
Additions and alterations to sidings at Bagalkot and Alamati	7,500
Trial station, Suldhal—Conversion into permanent.	8,000
Additions and alterations, Miraj Station ...	5,000
Additions to goods shed platform and sidings, Sangli	6,000
Catch and slip sidings, Alandi	5,600
Saswad Road Station	22,000
Carriage and repairing sheds, &c., Londa ...	17,000
Goods shed, Gudgeri	13,000
Railway school at Guntakal	12,000
Locomotive menials' quarters, Guntakal ...	7,000
Conversion of tank-house into Dispensary, &c., Guntakal	12,000
Additions and alterations at Guntur Station ...	7,000
Locomotive and Traffic Quarters, Tadepalli ...	16,000
1 Bogie Inspection carriage for Consulting Engineer	5,000
Additional rolling-stock	1,07,000
Fitting Jones' buffers to rolling-stock ...	10,000
Supplying moveable glass windows, &c., to 3rd class carriages	8,000
Plant, engineering and locomotive	75,000

The interest charges paid for 1897 compare as follows with the net earnings of that year :—

	Rs.
Interest—	
On subscribed Capital at 3½ per cent. ...	19,48,417
On Debentures at 3¼ per cent.	3,61,403
On Debentures at 3 per cent.	1,23,628
On Debentures at 2½ per cent.	28,563
On advances by Secretary of State at 4 per cent. ...	11,36,330
On Bellary-Kistna Railway—Government outlay ...	6,63,136
Total ...	42,61,447

	Rs.
Net earnings less contribution to Provident Fund for first half-year	27,94,709
Excess of interest charges over net earnings ...	14,66,768

MYSORE STATE RAILWAY (*Metre Gauge*).

No change occurred in the capital authorised and subscribed, which stood as follows on 31st December 1897 :—

	£	Rs.
Authorised Capital—		
Debenture stock	1,200,000	1,60,61,569
Subscribed Capital—		
4 per cent. Debentures	1,200,000	1,60,61,569
Add—		
Capital not bearing interest—		
Premia on shares	24,000	3,21,232
Total ...	1,224,000	1,63,82,801
Capital Expenditure—		
On construction account	1,101,668	1,47,45,430
On stores and suspenes	33,944	4,54,327
Total ...	1,135,612	1,51,99,757
Balance of Capital available for expenditure	88,388	11,83,044

Mileage open—296·00 miles.

The following table gives the detail of capital expenditure on final heads of account :—

	During 1897.	To end of 1897.
	Rs.	Rs.
Preliminary expenses	.....	2,95,375
Land	34,025	1,43,025
Formation	9,149	23,82,628
Bridge-work	5,331	19,09,235
Fencing, &c.	25	1,37,050
Ballast and permanent-way ...	82	50,64,759
Stations and buildings	14,333	13,49,938
Plant	6,328	3,37,322
General charges	3,604	9,04,576
Rolling-stock	7,535	22,21,432
Total, Final Heads ...	80,412	1,47,45,430
Suspense Accounts ...	11,087	4,54,327
Total, Final and Suspense Heads ...	91,499	1,51,99,757

The following are some of the principal works on which expenditure was incurred during the year :—

	Rs.
Land	34,000
General charges	3,600
Plant	6,000
Fitting Jones' buffers to rolling-stock	1,000
Supplying moveable shutters to 3rd class carriages	2,000
Additional rolling-stock	4,000
Rearrangement of the Bangalore yard ...	16,500
Conversion of the Yesvantapur Station into a permanent one	2,500
Adding 2 spans of girders to an existing 4—4′ slab top culvert	2,000
Grain siding at Davengeri	1,800

The interest charges paid for 1897 compare as follows with the net earnings of that year :—

	Rs.
Interest on debentures at 4 per cent.	7,75,708
Earnings less contribution to Provident Fund for first half-year	7,98,285
Excess of earnings over interest charges ...	22,577

KOLHAPUR STATE RAILWAY (*Metre Gauge*).

Miles open—29·07 miles.

The following table shows capital expenditure during the year and to end of 1897 :—

	During 1897.	To end of 1897.
	Rs.	Rs.
Preliminary expenses	.....	13,858
Land	716	29,919
Formation	.....	2,68,591
Bridge-work	.....	11,22,548
Fencing, &c.	.....	41,668
Ballast and permanent-way ...	.....	4,91,138
Stations and buildings	.....	2,29,257
Plant	.....	7,059
General charges	.....	1,02,591
Total, Final Heads ...	716	23,06,629
Suspense Accounts ...	.....	.....
Total, Final and Suspense Heads ...	716	23,06,629

GUNTAKAL-MYSORE FRONTIER RAILWAY (*Metre Gauge*).

Miles open—119 miles.

The following table shows the capital expenditure during the year and to end of 1897 :—

	During 1897.	To end of 1897.
	Rs.	Rs.
Preliminary expenses	.....	59,327
Land	.....	28,271
Formation	.....	7,83,879
Bridge-work	.....	20,32,615
Fencing, &c.	.....	56,997
Electric Telegraph	.....	1,345
Ballast and permanent-way ...	—87	18,24,260
Stations and buildings	2,492	4,72,767
Plant	—2	28,579
General charges	—63	6,14,458
Total, Expenditure ...	2,340	59,02,498

The expenditure during the year was incurred on auxiliary watering arrangements at Dharmavaram.

The following is a comparison of the interest charges with the net earnings of the year:—

	Rs.
Interest on capital at 4 per cent.	2,36,000
Net earnings	2,75,983
Excess of net earnings over interest charges ...	39,983

YESVANTPUR-MYSORE FRONTIER RAILWAY (*Metre Gauge*).

Miles open—51·35 miles.

The following table shows the capital expenditure for the year and to end of 1897:—

	During 1887.	To end of 1897.
	Rs.	Rs.
Preliminary expenses	.....	66,346
Land	.....	25,085
Formation	4,376	5,46,191
Bridge-work	.....	5,46,629
Fencing, &c.	.....	65,247
Ballast and permanent-way ...	2,938	8,55,475
Stations and buildings	—2,567	1,22,246
Plant	—50	35,846
General charges	.....	1,43,378
Total, Final Heads ...	4,697	24,06,443
Suspense Accounts ...	79,751	72,767
Total, Final and Suspense Heads ...	84,448	24,79,210

NANJANGUD RAILWAY (*Metre Gauge*).

Miles open—15·25 miles.

The following table shows the capital expenditure for the year and to end of 1897:—

	During 1897.	To end of 1897.
	Rs.	Rs.
Preliminary expenses	.....	15,210
Land	.....	3,005
Formation	.....	1,34,407
Bridge-work	1,524	84,804
Fencing, &c.	6,859	26,473
Ballast and permanent-way ...	.....	2,43,694
Stations and buildings	424	57,390
Plant	.....	5,651
General charges	.....	39,931
Total, Final Heads ...	8,807	6,10,565
Suspense Accounts ...	16,276	24,199
Total, Final and Suspense Heads ...	25,083	6,34,764

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY (*Metre Gauge*).

The total capital outlay (including suspense) on final heads of account to the end of 1897 was Rs. 1,76,53,652; the following statement shows the

distribution of this expenditure over the several sections of the Railway and the financial results, interest being calculated at 4 per cent:—

	Bhavnagar.	Gondal-Porbandar.	Junagad.	Total.
	Rs.	Rs.	Rs.	Rs.
Capital outlay to end of 1897 ...	71,30,420	66,23,373	38,99,859	1,76,53,652
Interest on capital outlay for 1897.	2,84,358	2,64,617	1,55,826	7,04,801
Net earnings for 1897	4,32,135	* 2,82,395	1,04,550	8,19,080.
Difference between net earnings for 1897 and interest	1,47,777	* 17,778	—51,276	+1,14,279
Total interest from commencement to end of 1897	46,43,749	32,10,567	13,95,155	92,49,471
Total net earnings to end of 1897.	64,42,662	* 26,54,367	5,12,508	96,09,537
Difference between total interest and total net earnings to end of 1897	17,98,913	—5,49,472	—8,82,647	+3,66,794
Percentage of net earnings on capital outlay for 1897 ...	6·06	4·29	2·68	4·58

* Includes loss incurred in working the Porbandar Estate.

Jetalsar-Rajkot Railway (*Metre Gauge*).

Jamnagar Railway (*Metre Gauge*).

The total capital outlay on final heads of account to the end of the calendar year 1897 was:—

Jetalsar-Rajkot Railway.	Jamnagar Railway.
Rs.	Rs.
15,47,463	22,51,864

which is composed as follows:—

	Jetalsar-Rajkot Railway.	Jamnagar Railway.
	Rs. a. p.	Rs. a. p.
Way and works	(*a*) 14,60,392 2 2	(*b*) 17,93,644 2 1
Rolling-stock	(*c*)	(*d*) 2,66,677 14 6
General charges	(*e*) 82,976 15 9	(*f*) 93,692 15 10
Total ...	15,43,369 1 11	21,54,015 0 5
Suspense Account	4,093 11 0	97,849 7 1
Total ...	15,47,462 12 11	22,51,864 7 6

The capital expenditure incurred on both these lines during the year was chiefly on "Ballast and Permanent-way," "Bridge-work," and "Formation."

(*a*) Rs. 31,589 per mile.
(*b*) ,, 35,656 do.
(*c*) Rolling-stock is supplied by Bhavnagar-Gondal-Junagad-Porbandar Railway.
(*d*) Rs. 5,301 per mile.
(*e*) ,, 1,794 do.
(*f*) ,, 1,860 do.

Morvi Railway (2′ 6″ *Gauge*).

The total capital expenditure on final heads of accounts to 31st December 1897 was Rs. 24,14,643. The amount held in suspense was Rs. 62,114, thus making the total capital outlay Rs. 24,76,757.

2. The following is the detail of the capital expenditure on final heads of accounts :—

Main Heads of Account.	During 1897.	Total at end of 1897.
	Rs. a. p.	Rs. a. p.
Preliminary expenses	.....	18,134 7 0
Land	.....	1,171 7 9
Construction of line	5,317 10 3	6,96,383 7 10
Ballast and permanent-way ...	40,719 14 4	11,44,943 9 2
Stations and buildings	2,870 4 11	48,758 8 3
Plant	3 0 0	14,510 6 4
Establishment	.....	1,02,846 13 0
Rolling-stock.		
Locomotive	—7,350 0 0	1,18,748 11 6
Carriage and wagon	9,277 10 3	2,69,145 13 2
Total ...	50,838 7 9	24,14,643 4 0

3. The total capital expenditure for the year amounted to Rs. 50,838, incurred chiefly on construction of line, ballast and permanent-way, stations and buildings, and carriage and wagon stock.

4. The increased outlay under "Construction of line" was chiefly due to an old adjustment of the Royalty due to the Wankaner State for the stones used for "Macboo Bridge" and two additional culverts built at mile Nos. 26 and 43.

5. The increase under "Ballast and Permanent-way" was chiefly due to 3 miles of 41½ lbs. rails substituted for 29 lbs. ones between mile Nos. 55 and 58 on metre gauge sleepers on the Rajkot Branch, and nearly 2 miles of 19 lbs. rails changed for 29 lbs. ones on the main line between Wadhwan and Dolia.

6. The increase under "Stations and Buildings" was chiefly due to the expenses incurred in removing all the plant and machineries from the old Durbar workshop to the new premises and lengthening the running shed at Morvi.

7. The increase under "Carriage and Wagon" was due to the provision of some additional carriages to the stock.

8. The decrease under "Locomotive" was due to the transfer of two locomotives at depreciated value to stores.

9. The following statement shows the interest charges at 4 per cent. per annum on the total capital outlay including suspense to the end of 1897 :—

	Rs.
Capital outlay to end of 1897	24,76,757
Interest on capital outlay for 1897	97,531
Net earnings for 1897	2,11,641
Difference for 1897	+1,14,110
Total interest from beginning to end of 1897 ...	8,41,403
Total net earnings to end of 1897	13,04,028
Difference to end of 1897	+4,62,625

BARSI LIGHT RAILWAY (2' 6" *Gauge*).

The total capital outlay on this small line was as under :—

	During 1897.	Total expenditure from commencement of operations to end of 1897.
	Rs. a. p.	Rs. a. p.
Preliminary expenses	.....	1,51,295 9 9
Land	21 4 0	22,151 4 0
Formation	109 10 8	13,853 7 10
Bridge-work	2,010 11 6	69,356 15 7
Fencing	749 0 5	12,383 15 6
Ballast and permanent-way	—351 5 1	3,04,740 3 1
Stations and buildings	3,844 11 10	1,41,317 12 3
Plant	9,923 1 11	12,880 2 10
Rolling-stock	277 10 7	4,26,856 10 11
General charges	—6,145 7 2	98,958 1 11
Interest on capital	—473 0 6	77,137 11 9
Total ...	9,966 6 2	13,30,931 15 5

Chapter VII.—Revenue Transactions.

(*For the calendar year ending 31st December 1897*).

GREAT INDIAN PENINSULA RAILWAY (*Standard Gauge*).

The result of the year's transactions as compared with 1896 is shown in the subjoined table :—

	1896.	1897.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	3,44,19,629	2,84,32,402	—59,87,227
Working expenses	1,83,55,735	1,86,39,902	+284,167
Net earnings	1,60,63,894	97,92,500	—62,71,394
Percentage of expenses on earnings ...	53·33	65·56	+12·23
	Miles.	Miles.	Miles.
Train mileage	9,000,933	9,096,798	+95,865
	Rs.	Rs.	Rs.
Receipts per train mile	3·82	3·13	—0·69
Expenses do.	2·04	2·05	+0·01
Net receipts do.	1·78	1·08	—0·70
	Miles.	Miles.	Miles.
Open miles	1,490·351	1,491·309	+0·958
	Rs.	Rs.	Rs.
Receipts per open mile	23,094	19,065	—4,029
Expenses do.	12,316	12,499	+183
Net receipts do.	10,778	6,566	—4,212
Percentage of net earnings on capital-bearing interest	5·80	3·50	—2·30

The following table gives the details of earnings and working expenses for 1897 compared with 1896 :—

	1896.	1897.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	96,19,496	77,89,154	—18,30,342
Goods	2,43,89,684	2,02,93,641	—40,96,043
Electric telegraph	81,485	83,591	+2,106
Sundries	3,28,964	2,66,016	—62,948
Total ...	3,44,19,629	2,84,32,402	—59,87,227
Working Expenses.			
Maintenance of way, works and stations	47,44,622	46,07,997	—1,36,625
Locomotive expenses	73,43,666	69,75,582	—3,68,084
Carriage and wagon expenses ...	15,97,155	22,98,506	+7,01,351
Traffic expenses...	29,11,607	29,58,232	+ 46,625
General charges...	13,14,277	13,43,864	29,587
Special and miscellaneous expenditure ...	4,44,408	4,55,721	+ 11,313
Total ...	1,83,55,735	1,86,39,902	+2,84,167
Rent of leased lines	5,33,907	3,98,103	—1,35,804
Contribution to Provident Fund ...	1,09,390	.....	—1,09,390
Total Working Expenses ...	1,89,99,032	1,90,38,005	+38,973
Net Earnings ...	1,54,20,597	93,94,397	—60,26,200

The mean mileage worked during the year was 1,491·309, the increase of 0·958 mile being due to increase in the sidings at Barsi Junction, Chicksagar, Wadi Junction, Khardi, Wassind, Akola, Wardha, Karli and Diksal, &c.

The gross earnings and working expenses of the year amounted respectively to Rs. 2,84,32,402 and Rs. 1,86,39,902 as against Rs. 3,44,19,629 and Rs. 1,83,55,735 in 1896, resulting in a decrease in net earnings of Rs. 62,71,394.

The prevalence of famine in many parts of India, and of the bubonic plague in the Bombay Presidency, has again caused a decline in traffic earnings.

Earnings.

The following table compares the coaching traffic during 1897 with that of 1896 :—

	1896.		1897.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First class	64,556	5,19,165	62,618½	4,68,455	—1,937½	—50,710
Second class	3,45,336	8,05,395	325,734	7,72,581	—19,602	—32,814
Third class, Mail ...	4,29,090	7,77,407	321,791½	5,93,434	—107,298½	—1,83,973
Do. other trains.	12,851,172	59,56,168	10,013,908	44,14,014	+2,837,264	—15,42,144
Total ...	13,690,154	80,58,125	10,724,052	62,48,484	+2,966,102	—18,09,641
Other Receipts ...	...	15,61,371	...	15,40,670	.....	—20,701
Grand Total ...	13,690,154	96,19,496	10,724,052	77,89,154	—2,966,102	—18,30,342

The total coaching traffic decreased by Rs. 18,30,342. The earnings from passenger traffic decreased by Rs. 18,09,641. The other coaching receipts also decreased by Rs. 20,701. The wars on the North-West Frontier, however, increased the receipts from the Military Department by about Rs. 58,000.

Quarantine and medical examinations at different stations adopted to check the spread of plague account for all the decreases in passenger traffic.

The following table shows the fluctuations in goods traffic as compared with the traffic for 1896 :—

	1896.		1897.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General merchandise ...	1,856,418	2,22,93,132	1,551,162	1,82,95,437	—305,256	—39,97,695
Military stores ...	10,411	2,05,470	9,008	1,54,290	—1,403	—51,180
Railway material for construction	26,832	30,267	15,951	16,504	—10,881	—13,763
Coal for public... ...	1,70,627	6,00,984	195,463	6,80,598	+24,836	+79,614
Do. construction ...	66	345	88	307	+22	—38
Do. revenue ...	1,82,050	3,80,376	206,424	4,54,656	+24,374	+74,280
Revenue stores ...	3,80,255	6,53,970	293,336	4,43,680	—86,919	—2,10,290
	No.		No.			
Live-stock	370,287	1,87,001	348,255	203,354	—22,032	+16,353
Rents, &c.	...	38,139	...	44,815	...	+6,676
Total ...	2,626,659	2,43,89,684	2,271,432	2,02,93,641	—355,227	—40,96,043

The goods traffic declined to the extent of Rs. 40,96,043. The highest decrease, Rs. 39,97,695, is under "General Merchandise." "Coal for the Public" and "Coal for Revenue" brought in nearly 3 quarters of a lakh more each. The decrease under "Revenue Stores" is due to shorter average lead and fewer ballast trains worked.

The fluctuations in the more important commodities carried during 1896 and 1897 are shown in the following statement:—

	1896.		1897.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Coal and coke	172,392	6,06,026	197,351	6,86,095	+24,959	+80,069
Cotton, raw	190,863	42,17,686	150,445	34,09,690	—40,418	—8,07,996
Do. manufactured	42,156	10,07,257	38,046	8,27,975	—4,110	—1,79,282
Drugs and chemicals	25,674	3,48,891	24,362	3,44,704	—1,312	—4,187
Dyes and tans	56,351	5,79,492	38,687	3,96,069	—17,664	—1,83,423
Grain and pulse	447,057	37,16,816	391,375	33,36,194	—55,682	—3,80,622
Hides and skins...	16,508	3,88,943	19,602	4,29,744	+3,094	+40,801
Horns	1,255	25,090	1,172	21,574	—83	—3,516
Jute	22,510	3,04,950	15,457	2,04,036	—7,053	—1,00,914
Lac	502	6,719	361	5,528	—141	—1,191
Leather, manufactured ...	2,828	56,308	2,434	44,852	—394	—11,456
Liquors	9,407	1,45,654	8,931	1,42,115	—476	—3,539
Metals	42,332	6,71,060	37,871	5,80,862	—4,461	—90,198
Oils	46,262	6,69,311	50,995	6,57,222	+4,733	—12,089
Oil-seeds	342,597	38,78,888	170,152	17,75,837	—172,445	—21,03,051
Opium	1,158	55,870	902	38,147	—256	—17,723
Paper and pasteboard	3,876	91,947	4,061	90,555	+185	—1,392
Provisions	73,067	10,38,557	67,908	9,87,119	—5,159	—51,438
Railway plant, &c.	43,117	4,30,215	31,747	3,20,635	—11,370	—1,09,580
Salt	145,130	15,85,104	154,445	15,90,805	+9,315	+5,701
Saltpetre, &c.	3,077	41,907	3,001	34,514	—76	—7,393
Silk, raw...	32	1,319	36	1,420	+4	+101
Silk, piece-goods	319	8,887	289	6,166	—30	—2,721
Spices	19,572	3,23,521	21,689	3,75,013	+2,117	+51,492
Stone and lime	19,432	1,11,494	21,956	1,10,058	+2,524	—1,436
Sugar	62,019	7,60,075	73,093	8,97,971	+11,074	+1,37,896
Tea	339	8,844	375	10,458	+36	+1,614
Timber	129,037	5,58,875	101,121	4,15,635	—27,916	—1,43,240
Tobacco	7,071	1,10,057	7,565	1,15,888	+494	+5,831
Wool, raw	341	9,415	447	11,976	+106	+2,561
Do. manufactured	1,181	24,165	991	19,012	—190	—5,153
All other articles	109,994	13,16,244	118,766	12,42,456	+8,772	—73,788

While the traffic in oil-seeds, cotton raw, and grain and pulse, shows large decreases, *viz.*, Rs. 21,03,051, Rs. 8,07,996 and Rs. 3,80,622 respectively, the only noticeable increase is Rs. 1,37,896 in sugar.

The sundry receipts decreased by Rs. 62,948, because the gross receipts on account of shunting at joint stations were greater than the gross charges on the same account in 1897.

Working Expenses.

The following are the principal fluctuations in the working expenses:—

(i) A net decrease of Rs. 1,36,625 in maintenance of way, works and stations, due chiefly to improvement in the rates for calculation of loss by exchange, reduction in the rate for carriage of revenue stores, and the large expenditure in the restoration of bridges in 1896.

(ii) A net decrease of Rs. 3,68,084 in locomotive expenses, due to the number of engines renewed being smaller by 8, and the issue rate of coal being also smaller.

(iii) A net increase of Rs. 7,01,351 in carriage and wagon expenses, due chiefly to 220 wagons being fitted with 12-ton wheels and axles in connection with replacement of Cammel's axles, and loss by exchange on the material issued for that purpose.

(iv) A net increase of Rs. 46,625 in traffic expenses, due to the payment of grain compensation and an extra debit for oil roof-lamps put out of use by the introduction of Pintsch's gas.

(v) A net increase of Rs. 29,587 in general charges, due chiefly to increase in the staff of signallers, grant of grain-compensation, reconstruction of seven miles of telegraph line with railway metal poles, and the engagement of additional police for preventing grain-robberies.

(vi) A net increase of Rs. 11,313 in special and miscellaneous expenses, due chiefly to increase in the payment of commission on loans and debentures and exchange thereon.

Rents of leased lines showed a decrease of Rs. 1,35,804, consequent on the decrease of traffic on the State Railways worked by the G. I. P. Railway.

There were no surplus profits earned in 1897, the net earnings having fallen short of the guaranteed interest, rent of leased lines, and interest on overdrawn capital.

The loss to the State for 1897 was Rs. 36,19,519, and the figures for the last six years compare as follows:—

	Rs.	
1892	32,86,836	Gain.
1893	19,18,723	„
1894	44,277	„
1895	39,920	Loss.
1896	1,65,546	Gain.
1897	36,19,519	Loss.

The outstandings to be recovered as ascertained on 17th March 1898 were Rs. 4,277 for the first half and Rs. 13,013 for the second half of 1897.

DHOND AND MANMAD AND WARDHA COAL STATE RAILWAYS (*Standard Gauge.*)

The result of the year's transactions as compared with the previous year are shown in the following table:—

Particulars.	DHOND AND MANMAD RAILWAY.			WARDHA COAL RAILWAY.		
	1896.	1897.	Difference.	1896.	1897.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	13,11,585	12,01,143	—1,10,442	2,06,078	1,98,858	—7,220
Working expenses	9,44,190	9,19,871	—24,319	1,22,218	1,40,327	18,109
Net earnings	3,67,395	2,81,272	—86,123	83,860	58,531	—25,329
Percentage of expenses on earnings...	71·99	76·58	4·59	59·31	70·57	11·26
	Train miles.	Train miles.	Train miles.	Train miles.	Train miles.	Train miles.
Train mileage	497,610	574,072	76,462	83,435	97,387	13,952
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile	2·64	2·09	—·55	2·47	2·04	—43
Expenses per train mile	1·90	1·60	—·30	1·46	1·44	—02
Net earnings per train mile ...	·74	·49	—·25	1·01	·60	—41
	Miles.	Mile.	Miles.	Miles.	Miles.	Miles.
Open miles...	145·44	145·44	.....	44·88	44·88	.....
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Earnings per open mile	9,018	8,259	—759	4,592	4,431	—161
Expenses per open mile	6,492	6,325	—167	2,723	2,127	404
Net earnings per open mile ...	2,526	1,934	—592	1,869	1,304	—565
Percentage of net earnings on total capital outlay, including Suspense	3·23	2·47	—76	1·68	1·17	—51

The working expenses shown above for the Dhond and Manmad State Railway consist of the following:—

	1896. Rs.	1897. Rs.
(*a*) Amount paid to the G. I. P. Railway Company for working the line based on the sliding scale of percentages	9,31,226	9,07,567
(*b*) Amount paid to the Government Telegraph for interest on the capital cost of the Telegraph line	7,794	7,134
(*c*) Amount paid to G. I. P. Railway Company for interest at 4 per cent. on the Capital cost of Dhond and Manmad Permanent staff quarters.	5,170	5,170
	9,44,190	9,19,871

The working expenses of the Wardha Coal State Railway shown above consist of the following:—

	1896. Rs.	1897. Rs.
(*a*) Amount paid to the G. I. P. Railway Company for working calculated at the same percentage on the gross earnings of the Wardha Coal State Railway as represents the percentage of working expenses on the gross earnings of the Company's line, including Branch lines worked.	1,10,429	1,29,034
(*b*) 5 per cent. for use of Company's rolling-stock...	10,304	9,943
(*c*) Amount paid to the Government Telegraph Department for interest and rent, &c. ...	1,485	1,350
	1,22,218	1,40,327

Traffic and Working.

The revenue derived during 1897 is compared with that of the preceding year in the following table:—

Particulars.	Dhond and Manmad.			Wardha Coal.		
	1896.	1897.	Difference.	1896.	1897.	Difference.
	R.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	5,86,412	4,70,158	—1,16,254	43,520	37,756	—5,764
Goods	7,15,796	7,21,812	6,016	1,60,501	1,58,875	—1,626
Electric telegraph ...	2,694	2,947	253	637	796	159
Sundries...	6,683	6,226	—457	1,420	1,430	10
	13,11,585	12,01,143	—1,10,442	2,06,078	1,98,857	—7,221

The following statement shows the receipts derived from the several classes of passengers during 1897 compared with 1896:—

	Dhond and Manmad.						Wardha Coal.					
	1896.		1897.		Difference.		1896.		1897.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
First class	2,834	14,791	3,304½	16,445	470½	1,654	327	891	276	776	—51	—115
Second class	11,322	26,249	18,236½	38,918	6,914½	12,669	406½	580	359	589	—47½	9
Third class by mail ...	...	...	6,072½	10,831	...	...	540½	332	449	276	—91½	— 56
Third class by other trains...	895,433½	4,83,526	621,192½	3,17,472	—268,168½	—1,55,223	140,569	38,651	119,924	33,260	—20,645	—5,391
Total ...	909,589½	5,24,566	648,806	3,83,666	—260,783½	—140,900	141,843	40,454	121,008	34,901	—20,835	—5,553
Other Receipts... ...	...	61,846	...	86,492	...	24,646	...	3,066	...	2,855	...	—211
Total Coaching ...	909,589½	5,86,412	648,806	4,70,158	—260,783½	—116,254	141,843	43,520	121,008	37,756	—20,835	—5,764

The important variations are the decrease under "Third Class by Mail and other trains" and increases under "Second Class" and "Other Receipts" on the Dhond and Manmad Railway, and the decrease under "Third Class by other trains" on the Wardha Coal Railway.

The goods traffic during 1897 under each of the classified heads is compared with the year 1896 in the subjoined statement:—

Particulars.	Dhond and Manmad.			Wardha Coal.		
	1896.	1897.	Difference.	1896.	1897.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Merchandise, general ...	6,86,238	6,79,164	—7,074	74,848	83,575	8,727
Military stores	9,130	9,694	564	17	3	—14
Railway material for construction	366	8	—358	24	.....	—24
Coal	2,861	19,374	16,513	84,740	74,451	—10,289
Revenue stores	9,831	2,348	—7,483	575	489	—86
Other items	7,370	11,224	3,854	296	357	61
Total ...	7,15,796	7,21,812	6,016	1,60,500	1,58,875	—1,625

The important variations are the decreases under "Merchandise, General," and "Revenue Stores," and increases under "Coal" and "Other items" on the Dhond and Manmad Railway, and on the Wardha Coal State Railway an increase under "Merchandise, General," and a decrease under "Coal."

The Berar State Railways (*Standard Gauge*).

These lines are worked by the G. I. P. Railway Company. The results of the year's transactions are compared with those of 1896 in the following table:—

Particulars.	Khamgaon.			Amraoti.		
	1896.	1897.	Difference.	1896.	1897.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	58,360	46,496	—11,864	1,04,111	1,03,193	—918
Working expenses	33,913	32,595	—1,318	61,240	73,332	12,092
Net earnings	24,447	13,901	—10,546	42,871	29,861	—13,010
Percentage of expenses on earnings	58·11	70·10	11·99	58·82	71·06	12·24
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Train mileage	14,854	13,630	—1,224	23,880	24,686	806
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile	3·93	3·41	—·52	4·36	4·18	—·18
Expenses per train mile	2·28	2·39	·11	2·56	2·97	·41
Net receipts per train mile ...	1·65	1·02	—·63	1·79	1·21	—·58
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Open miles	7·55	7·55	...	5·44	5·44	...
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Earnings per open mile	7,730	6,151	—1,579	19,138	18,969	—169
Expenses per open mile	4,492	4,317	—175	11,257	13,480	2,223
Net earnings per open mile ...	3,238	1,841	—1,397	7,881	5,489	—2,392
Percentage of net earnings on Total Capital outlay, including Suspense	4·68	2·66	—2·02	9·50	6·59	—2·91

The working expenses shown above consist of the following :—

	Khamgaon.		Amraoti.	
	1896.	1897.	1896.	1897.
	Rs.	Rs.	Rs.	Rs.
Paid to the Company at their rate of working expenses on gross receipts ...	30,996	30,270	55,149	67,288
5 per cent. for use of Company's rolling-stock	2,917	2,325	5,205	5,160
Interest on capital cost of additional short platform at Badnera Station ...	...	...	885	885
Total ...	33,913	32,595	61,239	73,333

Traffic and Working.

The figures for 1896 and 1897 under the four main heads of receipts are compared in the subjoined table :—

	Khamgaon.			Amraoti.		
	1896.	1897.	Difference.	1896.	1897.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	12,643	9,200	—3,443	30,333	27,559	—2,774
Goods	45,286	36,970	—8,316	72,787	74,709	1,922
Electric telegraph	157	144	—13	864	753	—111
Sundries	274	182	—92	127	172	45
Total ...	58,360	46,496	—11,864	1,04,111	1,03,193	—918

The coaching receipts for the year under review were derived from—

	Khamgaon Railway.						Amraoti Railway.					
	1896.		1897.		Difference.		1896.		1897.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.	No.	Rs.
First class ...	195½	101	161½	82	—34	—19	1,225	453	1,093	393	—132	—60
Second class ...	1,202	308	970	244	—232	—64	6,172	1,152	6,466½	1,176	294½	24
Third class ...	124,052	11,661	89,327½	8,396	—34,724½	—3,265	432,984½	27,115	393,005	24,596	—39,979½	—2,519
Total ...	125,449½	12,070	90,459	8,722	—34,990½	—3,348	440,381½	28,720	400,564½	26,165	—39,817	—2,555
Other Receipts ...	...	573	...	478	...	—95	...	1,613	...	1,394	...	—219
Total ...	125,449½	12,643	90,459	9,200	—34,990½	—3,443	440,381½	30,333	400,564½	27,559	—39,817	—2,774

The goods traffic during 1897 under each of the classified heads is as follows :—

Particulars.	Khamgaon Railway.			Amraoti Railway.		
	1896.	1897.	Difference.	1896.	1897.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Merchandise, general ...	45,032	36,795	—8,237	70,235	72,590	2,355
Military stores	...	...	...	123	97	—26
Railway material for construction.	1	...	—1	244	249	5
Coal	53	32	—21	1,566	1,134	—432
Revenue stores	14	5	—9	60	29	—31
Other goods traffic	186	138	—48	559	610	51
Total ...	45,286	36,970	—8,316	72,787	74,709	1,922

B. B. AND C. I. RAILWAY (*Standard Gauge*).

General Results.

The result of the year's transactions as compared with 1896 is shown in the subjoined table :—

	1896.	1897.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	1,62,03,933	1,42,61,293	—19,42,640
Working expenses	72,13,163	77,25,736	+5,12,573
Net earnings	89,90,770	65,35,557	—24,55,213
Percentage of expenses on earnings ...	44·51	54·17	+9·66
	Train miles.	Train miles.	Train miles.
Train mileage	2,467,880	2,431,889	—35,991
	Rs.	Rs.	Rs.
Receipts per train mile	6·57	5·86	—0·71
Expenses per do.	2·93	3·17	+0·24
Net receipts per do.	3·64	2·69	—0·95
	Miles.	Miles.	Miles.
Open miles	461	461	.....
	Rs.	Rs.	Rs.
Receipts per open mile	35,150	30,936	—4,214
Expenses per do.	15,647	16,759	+1,112
Net receipts per do.	19,503	14,177	—5,325
Percentage of net earnings on capital bearing interest	8·68	6·31	—2·37

The total amount payable to the Railway Company on account of surplus profits in comparison with 1896 is shown in the following table :—

	1896.	1897.	Difference.
	Rs.	Rs.	Rs.
Net earnings	89,90,770	65,35,557	—24,55,213
Deduct—			
Guaranteed interest	46,89,598	47,29,786	+40,188
Interest on overdrawn capital ...	55,007	42,393	—12,614
Contribution to Provident Fund ...	89,908	65,356	—24,552
Total ...	48,34,513	48,37,535	+3,022
Balance Surplus Profits ...	41,56,257	16,98,022	—24,58,235
Moiety payable to the Company ...	20,78,128	8,49,011	—12,29,117
Guaranteed interest	46,89,598	47,29,786	+40,188
Add—			
(*a*) Total payable to the Company ...	67,67,726	55,78,797	—11,88,929
Percentage on total capital bearing interest, *viz.*, Rs. 10,35,07,636 for 1897	6·53	5·39	—1·14
(*b*) Amount payable to the Company for Rajputana-Malwa Railway ($\frac{1}{5}$th of surplus profits for 1897).	8,24,542	5,67,229	—2,57,313
Total payable to the Company (*a*+*b*)...	75,92,268	61,46,026	—14,46,242
Percentage on total capital bearing interest	7·33	5·94	—1·39

Traffic and Working.

The following table gives the details of earnings and working expenses for the year 1897 as compared with 1896 :—

	1896.	1897.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	56,33,398	43,44,591	—12,88,807
Goods	1,01,87,587	95,45,840	—6,41,747
Electric telegraph	53,437	49,557	—3,880
Sundries	3,29,511	3,21,305	—8,206
Total ...	1,62,03,933	1,42,61,293	—19,42,640
Working Expenses.			
Maintenance of way, works and stations .	22,50,406	26,82,241	+4,31,835
Locomotive expenses	26,62,585	24,36,842	—2,25,743
Carriage and wagon expenses ...	5,85,806	9,22,292	+3,36,486
Traffic expenses	9,99,263	9,81,110	—18,153
General charges...	5,65,705	5,72,090	+6,385
Special and miscellaneous expenditure ...	1,49,398	1,31,161	—18,237
Total ...	72,13,163	77,25,736	+5,12,573
Net Earnings ...	89,90,770	65,35,557	—24,55,213

The following table compares the coaching traffic during 1897 with that of 1896 :—

	1896.		1897.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First class	136,826	1,48,776	122,367	1,33,897	—14,459	—14,879
Second class ...	1,210,535	4,35,010	1,125,900	4,21,059	—84,635	—13,951
Intermediate class ...	548,799	8,51,736	364,391	6,20,658	—184,408	—2,31,078
Third class	14,777,339	35,19,106	11,735,294	24,82,930	—3,042,045	—10,36,176
Total ...	16,673,499	49,54,628	13,347,952	36,58,544	—3,325,547	—12,96,084
Other Receipts ...	...	6,78,770	...	6,86,047	...	+7,277
Total ...	16,673,499	56,33,398	13,347,952	43,44,591	—3,325,547	—12,88,807

The decrease in the number of passengers carried and the earnings therefrom amounted to 3,325,547 and Rs. 12,96,084 respectively. The decrease is due to falling off of passenger traffic under all classes.

The total decrease was derived from :—

	No.	Rs.
Ordinary passenger traffic ...	—3,213,647	—13,17,024
Season tickets	—111,900	+20,940
	3,325,547	—12,96,084

The increase under "Other Receipts" is chiefly due to an increase in receipts from parcels carried for the public.

The following table shows the fluctuations in goods traffic, as compared with the traffic for 1896 :—

	1896.		1897.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General merchandise ...	1,203,389	90,83,569	1,123,185	85,53,304	—80,204	—5,30,265
Military stores ...	969	78,223	767	24,899	—202	—3,324
Railway materials for construction	142,415	1,50,437	230,835	2,19,731	+88,420	+69,294
Coal for the public ...	52,571	2,97,389	46,683	2,32,812	—5,888	—64,577
Do. construction ...	1,136	2,439	596	2,271	—540	—168
Do. revenue ..	89,412	1,79,289	81,331	1,49,479	—8,081	—29,810
Revenue stores ...	76,965	89,382	72,822	80,411	—4,143	—8,971
Total ..	1,566,857	98,30,728	1,556,219	92,62,907	—10,638	—5,67,821
	No.		No.			
Live-stock	484,021	3,46,802	428,391	2,73,106	—55,630	—73,696
Rents, &c.	.....	10,057	.....	9,827	.....	—230
Total ...	.....	1,01,87,587	.....	95,45,840	.....	—6,41,747

Fluctuations in the principal commodities carried during 1896 and 1897 are shown in the following statement:—

Description of Goods.	1896.		1897.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Coal and coke for the public and foreign railways	52,571	2,97,389	46,683	2,32,812	—5,888	—64,577
Cotton, raw	146,788	15,59,555	125,842	13,87,897	—20,946	—1,71,658
Cotton, manufactured ...	31,891	6,10,938	34,509	6,48,425	+2,618	+37,487
Drugs and chemicals ...	3,401	50,322	2,221	37,853	—1,180	—12,469
Dyes and tans	8,911	1,46,910	7,417	1,28,181	—1,494	—18,729
Grain and pulse ...	159,546	10,01,146	164,241	9,45,757	+4,695	—55,379
Hides and skins ...	3,552	53,116	3,181	45,974	—371	—7,142
Jute	10,281	1,13,249	9,449	98,782	—832	—14,467
Leather, manufactured .	1,015	18,321	780	14,152	—235	—4,169
Liquors...	4,190	50,983	3,495	43,854	—695	—7,129
Metals	38,709	5,12,709	41,527	4,86,764	+2,818	—25,945
Oils	10,987	1,24,468	14,215	1,66,442	+3,228	+41,974
Oil-seeds	118,224	10,70,111	95,588	8,75,000	—22,636	—1,95,111
Opium	1,384	52,479	1,419	53,487	+35	+1,008
Paper and paste-boards .	1,298	20,191	1,112	17,027	—186	—3,164
Provisions	40,042	3,81,214	43,911	4,02,740	+3,869	+21,526
Railway plant and rolling-stock carried for the public and foreign railways	40,927	1,92,354	30,732	1,12,534	—10,195	—79,820
Salt	134,899	4,18,306	139,135	4,28,311	+4,236	+10,005
Spices	8,921	1,07,107	11,265	1,34,946	+2,344	+27,839
Stone and lime... ...	33,345	1,01 831	27,471	89,385	—5,874	—12,446
Sugar	48,816	6,09,074	48,545	6,10,738	—271	+1,664
Tea	1,513	18,539	837	11,422	—676	—7,117
Timber	39,335	2,75,036	38,618	2,70,395	—717	—4,641
Tobacco...	26,192	2,00,328	18,989	1,38,963	—7,203	—61,365
Wool, raw	5,295	1,20,730	4,982	1,10,280	—313	—10,450
Firewood	50,485	1,90,647	48,601	1,81,412	—1,884	—9,235
Hay and grass	35,394	1,47,011	33,041	1,26,235	—2,353	—20,776
Mowra flowers and seeds	13,177	75,274	19,987	1,21,154	+6,810	+45,880
All other articles of merchandise	185,840	8,89,875	152,842	8,90,093	—32,998	+218
Total ..	1,256,929	94,09,213	1,170,635	88,11,015	—86,294	—5,98,198

It will be seen from the above that the decrease is due chiefly to a diminution of earnings from "General Merchandise" and has occurred principally in cotton raw, grain and pulse, metals, oil-seeds, railway plant and rolling-stock carried for the public and tobacco. The receipt from coal carried for the public and from live-stock have fallen off considerably. The decrease is due to

failure of foreign and local traffic generally. There has been during the year increase in traffic in cotton manufactured, oils, spices and mowra flowers and seeds.

Working Expenses.—The fluctuations in working expenses except under the three heads mentioned below have been small and needs no explanation.

Maintenance of Way, Works and Stations.—The increase of Rs. 4,31,835 is chiefly due to heavy expenditure on renewal of Warren girders. It is also partly due to extensive renewals of permanent-way material and partly to payment of grain compensation allowance, and to the engagement of additional gangs for the Nágda-Ujjain Railway.

Locomotive Expenses.—The decrease of Rs. 2,25,743 is principally due to renewal of one engine less than in 1896, decrease in the number of engines repaired, *viz.*, twenty-three against 34 in 1896, reduction in quantity of English coal used and in the prices of Indian coal. There was also a large decrease in loss by exchange paid to Government in consequence of less quantity of English coal used and favourable rate of exchange.

Carriage and Wagon Expenses.—The increase of Rs. 3,36,436 is due chiefly to extensive renewals of goods vehicles. A large quantity of English stores was used and the loss by exchange paid to Government was also more than in 1896.

H. H. The Gaekwar's Railways (*Metre Gauge*).

The chief features of the year's transactions are compared with those for 1896 in the following table :—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1896.	1897.	Difference.	1896.	1897.	Difference.	1896.	1897.	Difference.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gross earnings	2,58,788	2,20,901	—37,887	*85,033	64,737	—20,296	3,42,449	3,39,125	—3,324
Working expenses... ...	1,33,130	1,69,952	+86,822	†34,693	30,791	—3,902	1,52,021	1,57,967	+5,946
Net earnings	1,25,658	50,949	—74,709	50,340	33,946	—16,394	1,90,428	1,81,158	—9,270
Percentage of working expenses to earnings ...	51·44	76·94	+25·50	40·80	47·56	+6·76	44·39	46·58	+2·19
	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.	T. miles.
Train miles	83,989	92,318	+8,329	19,477	19,345	—132	1,02,051	1,01,537	—514
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per train mile ...	3·08	2·39	—0·69	4·37	3·34	—1·03	3·36	3·34	—0·02
Expenses do., ...	1·59	1·84	+0·25	1·78	1·59	—0·19	1·49	1·56	+0·07
Net receipts do. ...	1·49	0·55	—0·94	2·59	1·75	—0·84	1·89	1·78	—0·09
	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.	Miles.
Open miles	71·66	78·80	+7·14	13·35	13·35	...	92·63	92·63	...
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Receipts per open mile ...	3,611	2,803	—808	6,370	4,849	—1,521	3,697	3,660	—37
Expenses do. ...	1,857	2,157	+300	2,599	2,306	—293	1,641	1,705	+64
Net receipts do. ...	1,754	646	—1,108	3,771	2,543	—1,228	2,056	1,955	—101
Percentage of net earnings on total capital expended, including suspense ...	6·05	2·42	—3·58	6·89	4·49	—2·40	5·84	5·55	—0·29

* Is exclusive of Rs. 32,507 on account of terminals relating to previous years and paid to the Darbar during first half of 1896.

† Exclusive of Rs. 80,833-9-3 for terminal charges relating to previous years.

The gross earnings and working expenses for the two years 1896 and 1897 are compared in the following table :—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	1896.	1897.	Difference.	1896.	1897.	Difference.	1896.	1897.	Difference
Earnings.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Coaching	1,48,548	1,11,787	—36,761	52,003	32,989	—19,014	1,80,486	1,40,247	—40,239
Goods	1,06,931	1,05,853	—1,078	*32,096	30,593	—1,503	1,56,239	1,93,655	+37,416
Electric telegraph	2,224	2,432	+208	478	507	+29	4,907	5,112	+205
Sundries	1,085	829	—256	456	648	+192	817	111	—706
Total ...	2,58,788	2,20,901	—37,887	85,033	64,737	—20,296	3,42,449	3,39,125	—3,324
Working Expenses.									
Maintenance of way, works and stations	37,780	49,816	+12,036	8,257	7,564	—693	30,013	34,772	+4,759
Locomotive expenses ...	40,536	53,349	+12,813	14,115	11,140	—2,975	58,695	56,481	—2,214
Carriage and wagon expenses	24,027	28,943	+4,916	3,140	4,348	+1,208	15,344	15,223	—121
Traffic expenses	20,200	20,643	+443	5,336	4,496	—840	25,627	27,826	+2,199
General charges	10,569	14,427	+3,858	3,031	2,619	—412	19,733	20,599	+866
Special and miscellaneous expenses	18	2,774	+2,756	814	624	—190	2,609	3,066	+457
Total ...	1,33,130	1,69,952	+36,822	34,693	30,791	—3,902	1,52,021	1,57,967	+5,946
Net Earnings ...	1,25,658	50,949	—74,709	50,340	33,946	—16,394	1,90,428	1,81,158	—9,270

* Is exclusive of Rs. 32,507 on account of terminals relating to previous years and paid to the Darbar during first half of 1896.

Earnings.

The following table compares the coaching traffic during 1897 with that of 1896:—

	Dabhoi Railway.			Petlad Railway.			Mehsana Railway.		
	Passengers.		Other receipts.	Passengers.		Other receipts.	Passengers.		Other receipts.
	No.	Rs.	Rs.	No.	Rs.	Rs.	No.	Rs.	Rs.
1896 ...	473,147	1,43,043	5,505	281,696	49,736	2,267	697,503	1,70,863	9,623
1897 ...	379,472	1,06,368	5,419	177,158	30,956	2,033	525,447	1,30,340	9,907
Difference	—93,775	—36,675	—86	—104,538	—18,780	—234	—172,056	—40,522	+284

The decrease in the number of passengers carried and the earnings therefrom is chiefly in the third class traffic.

The following table shows the tonnage lifted and the receipts from goods traffic during 1897, compared with those of 1896, under the classified heads :—

	1896.		1897.		Difference.	
Dabhoi Railway.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Merchandise, general ...	49,893	1,04,614	47,993	99,714	—1,900	—4,900
Railway material for construction	13	10	9,801	4,532	+9,788	+4,522
Coal for the public... ...	397	422	17	24	—380	—398
Do. for revenue	237	120	509	227	+272	+107
Revenue stores	2,857	1,345	2,246	1,079	—611	—266
Total, Goods ...	53,397	1,06,511	60,566	1,05,576	+7,169	—935
	No.		No.		No.	
Live-stock	2,050	160	583	58	—1,467	—102
Rents, &c.	...	260	...	219	...	—41
Total ...	...	1,06,931	...	1,05,853	...	—1,078

	1896.		1897.		Difference.	
Petlad Railway.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Merchandise, general ...	24,296	31,296	21,759	30,047	—2,537	—1,249
Coal for the public... ...	...	...	...	...	...	...
Do. for revenue ...	401	93	154	33	—247	—60
Revenue stores	62	17	26	4	—36	—13
Total, Goods ...	24,759	31,406	21,939	30,084	—2,820	—1,322
	No.		No.		No.	
Live-stock	1,705	501	1,208	306	—497	—195
Rents, &c.	...	189	...	203	...	+14
Total ...	...	32,096	...	30,593	...	—1,503
Mehsana Railway.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Merchandise, general ...	94,396	1,55,072	1,15,597	1,92,844	+21,201	+37,772
Military stores	3	11	...	...	—3	—11
Railway material for construction	551	304	...	...	—551	—304
Coal for the public	7	14	1	2	—6	—12
Revenue stores	80	37	425	155	+345	+118
Total, Goods ...	95,037	1,55,438	1,16,023	1,93,001	+20,986	+37563
	No.		No.		No.	
Live-stock	1,347	238	3,390	238	+2,043	...
Rents, &c.	...	563	...	416	...	—147
Total ...	...	1,56,239	...	1,39,655	...	+37,416
Dabhoi Railway.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Cotton, raw...	7,529	16,332	4,205	10,779	—3,324	—5,553
Cotton, manufactured ...	566	1,778	604	1,625	+38	—153
Oil-seeds	2,482	5,107	1,554	3,398	—928	—1,709
Mowra flowers and seeds ...	5,809	15,363	9,480	23,540	+3,671	+8,177
Metals	768	1,661	712	1,362	—56	—299
Grain and pulse	9,126	16,739	8,836	14,246	—290	—2,493
Firewood	3,490	6,770	2,651	4,986	—839	—1,784
Provisions	1,297	3,389	1,379	3,502	+82	+113
Salt	2,206	3,912	2,178	3,332	—28	—580
Stone and lime	2,003	2,755	62,538	9,084	+4,535	+6,329
Sugar	1,233	2,261	1,057	1,722	—176	—539
Timber	1,894	4,534	1,563	3,225	—331	—1,309
All other articles of merchandise	11,887	24,435	7,253	18,937	—4,634	—5,498
Total ...	50,290	1,05,036	48,010	99,738	—2,280	—5,298
Petlad Railway						
Cotton, raw	1,079	1,126	875	963	—204	—163
Cotton, manufactured ...	658	843	714	896	+56	+53
Grain and pulse	2,773	1,996	4,177	3,499	+1,404	+1,503
Oil-seeds	591	489	178	120	—413	—369
Salt	858	1,016	856	1,224	—2	+208
Stone and lime	1,379	984	751	645	—628	—339
Sugar	646	597	645	702	—1	+105
Timber	1,097	899	987	857	—110	—42
Tobacco	10,579	11,114	8,124	8,565	—2,455	—2,549
All other articles of merchandise	4,636	12,232	4,452	12,576	—184	+344
Total ...	24,296	31,296	21,759	30,047	—2,537	—1,249

Mehsana Railway.	1896. Tons.	1896. Rs.	1897. Tons.	1897. Rs.	Difference. Tons.	Difference. Rs.
Cotton, raw...	798	2,080	912	3,075	+114	+995
Do. manufactured ...	1,543	3,615	1,607	3,596	+64	—19
Firewood	1,325	2,051	598	864	—727	—1,187
Grain and pulse	19,443	39,564	34,827	61,863	+15,384	+22,299
Jute	787	1,303	804	1,266	+17	—37
Metals	949	1,432	1,147	1,543	+198	+111
Mowra flowers and seeds ...	1,086	1,116	149	172	—937	—944
Oils	1,186	2,563	1,162	2,390	—24	—173
Oil-seeds	23,599	22,464	27,567	27,978	+3,968	+5,514
Provisions	1,959	3,244	2,238	4,038	+279	+794
Salt	21,883	33,921	23,215	35,392	+1,332	+1,471
Spices	379	976	362	710	—17	—86
Stone and lime	1,610	3,357	1,684	3,857	+74	+500
Sugar	6,819	9,715	6,373	10,843	—446	+1,128
Timber	3,304	4,322	5,466	6,905	+2,162	+2,583
Tobacco	489	1,065	522	954	+33	—111
All other articles of merchandise	7,247	22,489	6,965	27,400	—282	+4,911
Total ...	94,406	1,55,097	1,15,598	1,92,846	+21,192	+37,749

Dabhoi Railway.—The principal decrease was in cotton raw, and other articles of merchandise. There was a large increase in receipts from stone and lime and mowra flowers and seeds.

Petlad Railway.—The fluctuations were unimportant, the principal one being a decrease of 2,455 tons, Rs. 2,549 in tobacco and an increase of 1,404 tons and Rs. 1,503 in grain and pulse.

Mehsana Railway.—The increase was chiefly in grain and pulse and oil-seeds.

Working Expenses, Dabhoi Line.—There were increases under all the heads of Expenditure and they were due to the following causes.

Maintenance of Way, Works and Stations.—The increase of Rs. 12,036 is due chiefly to large issues of permanent-way materials for more extensive renewals of the line and to the maintenance of the Vishwamitri-Padra extension. Outlay on new minor works during the year has also contributed towards the increase.

Locomotive Expenses.—The increase of Rs. 12,813 is due partly to heavier repairs of engines and to the cost of new boilers used for renewal purposes, and partly to a heavier debit for loss by exchange on account of large issues of English stores.

Carriage and Wagon Expenses.—The increase of Rs. 4,910 is chiefly due to the heavier repairs and renewals of coaching and goods vehicles and to the consequent increase for loss by exchange on English stores.

Traffic Expenses.—The increase is small and calls for no special remark.

General Charges.—The increase of Rs. 3,858 is mainly due to the charge for rent and maintenance of the telegraph wires for the year 1896 having been included in the accounts for the year 1897.

Special and Miscellaneous Expenditure.—The increase of Rs. 2,756 is entirely due to law charges incurred in connection with an accident at Bhilapur.

On the Petlad and Mehsana Railway, working expenses under the different abstracts are calculated at the same percentage on gross earnings as prevails on the Bombay, Baroda and Central India and Rajputana-Malwa Railways respectively in each half-year.

	1896.	1897.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	2,10,21,002	1,95,47,748	—14,73,254
Working expenses	95,55,625	93,83,035	—1,72,590
Net earnings	1,14,65,377	1,01,64,713	—13,00,664
Percentage of working expenses to earnings	45·46	48·00	+2·54
Interest	73,48,855	73,18,106	—30,749
Gross divisible surplus	41,22,710	28,36,145	—12,86,565
One-fifth share payable to the Company...	8,24,542	5,67,229	—2,57,313
	Train Miles.	Train Miles.	Train Miles.
Train mileage	5,583,893	5,351,800	—232,093
	Rs.	Rs.	Rs.
Receipts per train mile	3·76	3·65	—0·11
Expenses do.	1·71	1·75	+0·04
Net receipts do.	2·05	1·90	—0·15
	Miles.	Miles.	Miles.
Open miles	1,814·841	1,814·850	0·009
	Rs.	Rs.	Rs.
Receipts per open mile	11,583	10,771	—812
Expenses do.	5,265	5,170	—95
Net receipts do.	6,318	5,601	—717
Percentage of net earnings on total capital outlay, excluding indirect charges ...	7·63	6·80	—0·83

Traffic and Working.

The total open mileage on 31st December 1897 was 1,814·850 (1,673·940 miles metre gauge and 140·910 miles broad gauge) and the mean mileage worked during the year was the same.

The gross earnings and working expenses for the two years 1896 and 1897 are compared in the following table :—

	1896.	1897.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	73,48,863	63,31,749	—10,17,114
Goods	1,32,20,897	1,27,70,620	—4,50,277
Electric telegraph	81,350	74,438	—6,912
Sundries	3,69,892	3,70,941	+1,049
Total ...	2,10,21,002	1,95,47,748	—14,73,254
Working Expenses.			
Maintenance of way, works and stations ...	19,20,111	21,24,516	+2,04,405
Locomotive expenses	37,75,581	34,03,731	—3,71,850
Carriage and wagon expenses ...	9,34,767	8,78,411	—56,356
Traffic expenses	15,66,990	16,08,921	+41,931
General charges...	12,03,655	11,94,714	—8,941
Special and miscellaneous expenditure ...	1,54,521	1,72,742	+18,221
Total ...	95,55,625	93,83,035	—1,72,590
Net Earnings ...	1,14,65,377	1,01,64,713	—13,00,664

The following statement shows the receipts under coaching derived from the several classes of passengers and the number carried :—

	1896.		1897.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First class	19,217	1,42,047	18,076	1,22,874	—1,141	—19,173
Second class	69,236	2,14,420	81,670	2,09,982	+12,434	—4,438
Intermediate	2,66,992	2,93,895	218,464	2,41,306	—48,528	—52,589
Third class	11,076,862	59,51,187	9,503,943	48,51,357	—1,572,919	—10,99,830
Total ...	11,432,307	66,01,549	9,822,153	54,25,519	—1,610,154	—11,76,030
Other Receipts ...	.....	7,47,314	.....	9,06,230	.....	+1,58,916
Total Coaching ...	11,432,307	73,48,863	.....	63,31,749	—1,610,154	—10,17,114

The decrease in passenger traffic is due to famine, restrictions on movements from localities affected by plague, and to the year being considered inauspicious for Hindu marriages. There was, however, an increase under Troops and Police, military baggage, horses, &c., owing to the movement of troops for the Tirah Expedition.

The following table shows the goods traffic during 1897 compared with that of 1896 under the classified heads :—

	1896.		1897.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Merchandise, general	1,485,027	1,24,49,738	1,435,078	1,21,81,600	—49,949	—2,68,138
Military stores	5,558	84,420	6,641	1,28,811	+1,083	+44,391
Railway material for construction.	70,217	97,799	27,252	33,927	—42,965	—63,872
Coal for the public	10,790	43,073	19,841	71,470	+9,051	+28,397
Do. for construction	10,510	22,187	10,955	23,120	+445	+933
Do. for revenue	87,307	2,74,619	60,367	1,34,225	—26,940	—1,40,394
Revenue stores	91,226	1,56,797	88,168	1,21,951	—3,058	—34,846
Total Goods ...	1,760,635	1,31,28,633	1,648,302	1,26,95,104	—112,333	—4,33,529
	No.		No.		No.	
Live-stock	1,47,497	67,949	1,23,368	55,996	—24,129	—11,953
Rents, &c.	.....	25,099	.....	19,749	.....	—5,350
Gross Total ...	.....	1,32,21,681	.....	1,27,70,849	.....	—4,50,832
Less—Outstandings irrecoverable.	.....	784	.....	229	.....	+555
Net Total ...	.....	1,32,20,897	.....	1,27,70,620	.....	—4,50,277

The quantities of the principal commodities carried during 1896 and 1897 and the earnings therefrom will be found in the following table :—

	1896.		1897.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Coal and coke carried for the public and foreign railways ...	10,790	43,073	19,841	71,470	+9,051	+28,397
Cotton, raw	74,794	11,81,416	75,641	10,95,121	+847	—86,295
Cotton, manufactured	33,186	7,63,515	36,186	8,53,272	+3,000	+89,757
Drugs and chemicals	2,120	42,081	2,031	39,997	—89	—2,084
Dyes and tans	10,378	1,53,912	8,495	1,40,582	—1,883	—13,330
Firewood	36,816	64,918	29,590	42,070	—7,226	—22,843
Grain and pulse	469,354	29,67,332	447,411	30,73,712	—21,943	+1,06,380
Hides and skins	7,259	81,970	7,407	85,112	+148	+3,142
Jute	19,687	1,59,506	18,823	1,48,624	—864	—10,882
Leather, manufactured	942	18,949	963	13,316	+21	—2,633
Liquors	3,619	45,176	3,277	41,451	—342	—3,725
Metals	31,214	3,89,384	29,841	3,63,369	—1,373	—26,015
Mowra flowers and seeds... ...	4,974	30,027	7,803	51,284	+2,829	+21,257
Oils	9,618	85,155	11,856	1,07,672	+2,238	+22,517
Oil-seeds	139,287	7,85,828	120,864	6,44,316	—18,423	—1,41,512
Opium	4,149	67,213	3,787	57,619	—362	—9,594
Paper and pasteboard	1,367	25,160	1,236	19,053	—131	—6,107
Provisions	49,883	4,48,844	49,501	4,15,857	—382	—32,987
Railway plant and rolling-stock carried for the public and foreign railways	27,496	1,51,120	18,964	51,465	—8,532	—99,655
Salt...	212,349	19,66,221	222,279	20,44,173	+9,930	+77,952
Saltpetre, &c.	18,125	1,02,507	12,809	82,828	—5,316	—19,679
Spices	14,306	1,56,329	16,396	1,85,250	+2,090	+28,921
Stone and lime	25,088	1,01,347	26,618	90,917	+1,530	—10,430
Sugar	123,714	12,96,539	128,297	12,90,771	—417	—5,768
Tea	1,290	32,360	830	19,905	—460	—12,435
Timber	26,448	1,13,141	25,756	1,10,246	—692	—2,895
Tobacco	19,199	2,43,065	17,273	2,03,702	—1,926	—39,363
Wool, raw	7,033	1,20,907	6,438	1,06,091	—595	—14,816
Wool, manufactured	771	22,575	661	17,958	—110	—4,617
All other articles of merchandise.	111,119	9,17,666	110,734	9,11,678	—385	—5,983
Total ...	1,501,375	1,25,77,231	1,461,608	1,23,81,881	—39,767	—1,95,350

NAGDA-UJJAIN RAILWAY (*Standard Gauge*).

The line was opened for traffic on the 15th July 1896.

The results of the year's transactions, as compared with 1896, is as under:—

	1896.	1897.	Difference.
Gross earnings ... ... Rs.	40,701	104,640	+63,939
Working expenses ... ... „	22,939	56,883	+33,944
Net earnings ... ... „	17,762	47,757	+29,995
Percentage of working expenses to earnings „	56·36	54·36	—2·00
Train mileage ... ... Train miles.	33,377	64,139	+30,762
Receipts per train mile ... ... Rs.	1·22	1·63	+0·41
Expenses do. ... ... „	0·69	0·89	+0·20
Net receipts do. ... ... „	0·53	0·74	+0·21
Open mileage ... ... Miles.	34·67	34·67	...
Receipts per open mile ... ... Rs.	2,520	3,081	+498
Expenses do. ... ... „	1,420	1,640	+220
Net receipts do. ... ... „	1,100	1,378	+278
Percentage of net earnings on total capital outlay ... ... „	0·86	2·15	+1·29

Traffic and Working.

The total mileage open at the end of 1897 was 34·67.

The gross earnings and working expenses for the two years 1896 and 1897 are compared in the following table:—

	1896.	1897.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	12,554	35,422	+22,868
Goods	27,904	68,652	+40,748
Electric telegraph	183	538	+355
Sundries	60	28	—32
Total ...	40,701	1,04,640	+63,939
Working Expenses.			
Maintenance of way, works and stations ...	7,978	19,589	+11,611
Locomotive expenses	7,705	18,636	+10,931
Carriage and wagon expenses	1,856	6,205	+4,349
Traffic expenses	3,065	7,205	+4,140
General charges	1,792	4,320	+2,528
Special and miscellaneous expenses	543	928	+385
Total ...	22,939	56,883	+33,944
Net Earnings ...	17,762	47,757	+29,995

The following table compares the coaching traffic during 1897 with that of 1896:—

	1896.		1897.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First class	50	126	136	289	+86	+163
Second class ...	164	205	582	731	+418	+526
Intermediate class ...	143	66	484	246	+341	+180
Third class	41,275	11,725	1,03,763	31,953	+62,488	+20,228
Total ...	41,632	12,722	1,04,965	33,219	+63,333	+21,097
Other Receipts ...	...	432	...	2,203	...	+1,771
Total ...	41,632	12,554	1,04,965	35,422	+63,333	+22,868

The increase in the number of passengers carried and earnings thereform is due chiefly to the line being worked throughout the year, while in 1896 it was open for 5½ months only.

The following table shows the fluctuations in goods traffic as compared with 1896:—

	1896.		1897.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Merchandise, general ...	13,560	27,680	34,587	67,847	+21,027	+40,167
Railway material for construction	141	41	363	157	+222	+116
Coal for public ...	50	46	77	55	+27	+9
Do. for revenue ...	...	...	188	53	+188	+53
Revenue stores ...	...	...	3	1	+3	+1
Total ...	13,751	27,767	35,218	68,113	+21,467	+40,346
	No.		No.		No.	
Live-stock	...	...	108	19	+108	+19
Rents, &c.	...	137	...	520	...	+383
	...	27,904	...	68,652	...	+40,748

The fluctuations in the principal commodities carried during 1896 and 1897 are shown in the following table:—

	1896.		1897.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Cotton, raw	101	241	3,925	10,285	+3,824	+10,044
Cotton, manufactured ...	554	1,739	1,333	3,941	+779	+2,202
Gram and pulse ...	6,893	14,535	6,251	11,203	—642	—3,332
Oil-seeds	67	105	639	1,063	+572	+958
Salt	3,544	6,122	13,629	21,640	+10,085	+15,518
Sugar	394	846	2,154	4,773	+1,760	+3,927
Mowra flowers and seeds ...	30	58	1,798	3,530	+1,768	+3,472
Tobacco	211	623	697	2,042	+486	+1,419
All other articles of merchandise	1,794	3,451	4,238	9,425	+2,444	+5,974
Total ...	13,588	27,720	34,664	67,902	21,076	+40,182

The increase is due to the line being open for traffic for the whole year 1897, while it was open only 5½ months in 1896.

The working expenses of the line are calculated at the same percentage on gross earnings as prevails on the B. B. & C. I. Railway in each half-year.

Rajputana-Malwa Railway (*Metre Gauge*)

Including the Godhra-Rutlam-Nagda Railway (*Broad Gauge*).

The working results of the year's transactions, as compared with those of 1896, are shown in the following table:—

Under "General Merchandise" the principal decreases were in oil-seeds, 18,423 tons, Rs. 1,41,512, in Railway Plant and Rolling-stock carried for the Public and Foreign Railways, 8,532 tons, Rs. 99,655, and in firewood, 7,226 tons, Rs. 22,843. There was a decrease of 42,965 tons, Rs. 63,872, under "Railway Material for Construction," due to smaller number of ballast trains run on the Rutlam-Ujjain line. The decreases of 26,940 tons, Rs. 1,40,394, and 3,058 tons, Rs. 34,846, under "Coal for Revenue" and "Revenue Stores" are due to less purchase of coal and revenue stores during the year.

In working expenses the increase of Rs. 2,04,405 under "Maintenance of Way, Works and Stations" is due partly to the payment of grain compensation allowance and partly to heavier renewals with 50 lbs. rails. The decrease of Rs. 3,71,850 under "Locomotive Expenses" is due partly to decrease in the train mileage run and partly to decrease in purchase and conveyance of coal. The decrease of Rs. 56,356 under "Carriage and Wagon Expenses" is chiefly due to less outlay on re-axling and wheel changing operations owing to the non-receipt of axle boxes from England. The increase of Rs. 41,931 under "Traffic Expenses" is due chiefly to the payment of grain compensation allowance. The decrease of Rs. 8,941 under "General Charges" is due chiefly to the reduction in the rent of instruments charged by the Telegraph Department. The increase of Rs. 18,221 under Special and Miscellaneous Expenditure is due to the payment fo compensation for heavy damages of goods by rains and for personal injury in the accident at Delhi.

Palanpur-Deesa Railway (*Metre Gauge*).

The working results of the year's transactions, as compared with those of 1896, are shown in the following table :—

	1896.	1897.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	*51,629	43,264	—8,365
Working expenses	22,457	20,138	—2,319
Net earnings	29,172	23,126	—6,046
Percentage of working expenses to earnings ...	43·50	46·55	+3·05
	T. miles.	T. miles.	T. miles.
Train mileage	12,865	12,920	+55
	Rs.	Rs.	Rs.
Receipts per train mile	4·01	3·35	—0·66
Expenses do.	1·75	1·56	—0·19
Net receipts do.	2·26	1·79	—0·47
	Miles.	Miles.	Miles.
Open miles	17·28	17·28	...
	Rs.	Rs.	Rs.
Receipts per open mile	2,988	2,504	—484
Expenses do.	1,300	1,166	—134
Net receipts do.	1,688	1,338	—350
Percentage of net earnings on total capital outlay ...	6·98	5·53	—1·45

* Includes Rs. 11,602 for terminal charges relating to previous years.

Traffic and Working.

The mileage open throughout the year and on 31st December 1896 was 17·28, the same as in 1896.

The gross earnings and working expenses for the years 1896 and 1897 are compared in the following table :—

	1896.	1897.	Difference.
Earnings.	Rs.	Rs.	Rs.
Coaching	22,499	14,157	—8,342
Goods...	28,957	28,883	—74
Electric telegraph	165	216	+51
Sundries	8	8	...
Total ...	51,629	43,264	—8,365
Working Expenses.			
Maintenance of way, works and stations	4,334	4,432	+98
Locomotive expenses...	8,786	7,208	—1,578
Carriage and wagon expenses	2,282	1,939	—343
Traffic expenses	3,752	3,546	—206
General charges	2,915	2,622	—293
Special and miscellaneous expenditure	388	391	+3
Total ...	22,457	20,138	—2,319
Net Earnings ...	29,172	23,126	—6,046

The following statement shows the coaching earnings derived from the several classes of passengers and the number carried :—

	1896.		1897.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First class	554	568	590	585	+36	+17
Second do.	1,782	767	2,947	843	+165	+76
Third do.	113,789	19,373	60,360	10,284	—53,429	—9,089
Total ...	116,125	20,708	63,897	11,712	52,228	—8,996
Other receipts	...	1,791	...	2,445	...	+654
Total Coaching ...	...	22,498	...	14,157	...	—8,342

The falling-off is entirely in third class traffic, both first and second class having improved.

The following table shows the goods traffic of 1897 compared with that of 1896 under the heads of classification :—

	1896.		1897.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Merchandise, general	13,603	16,743	20,133	28,434	+6,530	+11,691
Military stores	127	218	136	199	+9	—19
Railway material for construction ...	240	53	...	...	—240	—53
Coal for the public	...	...	...	...	...	...
Do. for construction	...	...	...	...	...	...
Do. for revenue	...	...	18	5	+18	+5
Revenue stores	139	32	32	6	—107	—26
Total Goods ...	14,109	17,046	20,319	28,644	+6,210	+11,598
	No.		No.		No.	
Live-stock	364	114	240	19	—124	—95
Rents, &c.	...	195	...	220	...	+25
Terminal charges relating to previous years	...	11,602	...	...	...	—11,602
Total ...	...	28,957	...	28,883	...	—74

The quantities of the principal commodities carried during 1896 and 1897, and the earnings therefrom, will be found in the following table:—

	1896.		1897.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Grain and pulse	3,864	3,153	6,706	7,518	+2,842	+4,365
Oil-seeds	1,594	1,610	4,658	5,252	+3,064	+3,642
Provisions	1,282	1,180	1,982	1,911	+700	+731
Sugar	2,132	2,234	1,927	2,534	−205	+300
All other articles of merchandise ...	4,858	8,784	4,996	11,418	+138	+2,634
Total ...	13,730	16,961	20,269	28,633	+6,539	11,672

Under "General Merchandise" there were increases in almost all commodities, chiefly in grain and pulse, and oil-seeds of 2,842 tons, Rs. 4,365, and 3,064 tons, Rs. 3,642, respectively.

The working expenses on this line are charged in each half-year at the same percentage on gross earnings as prevails on the metre gauge portion of the Rajputana-Malwa Railway system.

Oodeypore-Chitor Railway (*Metre Gauge*).

The line was opened for traffic on the 1st August 1895.

The working results of the transactions of 1897, as compared with those of 1896, are shown in the following table:—

		1896.	1897.	Difference.
Gross earnings	Rs.	1,35,220	1,23,175	−12,045
Working expenses	„	81,469	80,294	−1,175
Net earnings	„	53,751	42,881	−10,870
Percentage of working expenses to earnings	„	60·25	65·18	−4·93
Train mileage	T. Miles.	47,324	45,707	−1,617
Receipts per train mile	Rs.	2·86	2·69	−0·17
Expenses do.	„	1·72	1·76	+0·04
Net receipts do.	„	1·14	0·93	−0·21
Open mileage (mean)	Miles.	60·354	60·394	+0·040
Receipts per open mile	Rs.	2,240	2,039	−201
Expenses do.	„	1,350	1,329	−21
Net receipts do.	„	890	710	−180
Percentage of net earnings on total capital outlay	„	*	*	*

* Capital outlay not known.

Traffic and Working.

The total mileage open at the end of 1897 was 60·394; the mean mileage worked during the year was the same.

The following table shows the gross earnings and working expenses:—

Earnings.	Rs.	Working Expenses.	Rs.
Coaching	88,094	Maintenance of way, works and stations.	35,511
Goods	34,093		
Electric telegraph	927	Locomotive expenses ...	20,507
Sundries	61	Carriage and wagon expenses ...	5,540
		Traffic expenses	10,120
Total ...	1,23,175	General charges	7,503
Working expenses	80,294	Special and Miscellaneous ...	1,113
Net Earnings ...	42,881	Total ...	80,294

The coaching earnings from the several classes of passengers are shown below :—

	No.	Rs.
First class	339	1,572
Second do.	1,471	3,094
Third do.	179,762	76,958
Total ...	181,572	81,624
Other receipts...	...	6,470
Total, Coaching ...	...	88,094

The following table details the goods traffic under the heads of classification :—

	Tons.	Rs.
Merchandise, general	12,161	31,617
Military stores...	2	13
Railway materials for construction ...	1,219	726
Coal	...	...
Revenue stores...	1,345	871
Total, Goods ...	14,727	33,227
Rents, &c.	...	866
Total ...	...	34,093

The principal commodities carried were : cotton, raw, 879 tons, Rs. 3,242 ; cotton, manufactured, 677 tons, Rs. 2,905 ; grain and pulse, 1,562 tons, Rs. 3,168 ; provisions, 568 tons, Rs. 1,604 ; salt, 990 tons, Rs. 2,480 ; sugar, 1,118 tons, Rs. 2,946 ; tobacco, 472 tons, Rs. 1,402 ; oil-seeds, 680 tons, Rs. 1,005 ; and stones and lime, 2,643 tons, Rs. 2,907.

The working expenses of the line, except maintenance which is charged on actual expenditure with a percentage for supervision, are charged at the percentage on gross earnings prevailing on the Rajputana-Malwa Railway system.

Ahmedabad-Parantij Railway (*Metre Gauge*).

The line was opened for traffic from Ahmedabad to Talod, 32·88 miles, on 1st May 1897 ; from Talod to Parantij, 7·89 miles, on 20th June 1897 ; and from Parantij to Ahmednagar, 13·82 miles, on 23rd October 1897. The open mileage on 31st December 1897 was 54·59 miles and mean mileage 28·93 miles.

The working results of the year's transactions were as follows :—

Gross earnings	Rs.	69,068
Working expenses...	„	32,404
Net earnings	„	36,664
Percentage of working expenses to earnings.	„	46·92
Train mileage	Train miles.	25,298
Receipts per train mile	Rs.	2·73
Expenses do.	„	1·28
Net receipts do.	„	1·45
Open mileage (mean)	Miles.	28·93
Receipts per open mile	Rs.	2,387
Expenses do.	„	1,120
Net receipts do.	„	1,267
Percentage of net earnings on total capital outlay	„	1·91

The following table shows the gross earnings and working expenses :—

Earnings.

	Rs.
Coaching	38,372
Goods	30,110
Electric telegraph ...	586
Sundries	
Total ...	69,068
Working expenses ...	32,404
Net earnings ...	36,664

Working Expenses.

	Rs.
Maintenance of way, works and stations ...	7,144
Locomotive expenses ...	11,468
Carriage and wagon expenses	3,148
Traffic expenses ...	5,730
General charges ...	4,294
Special and miscellaneous expenditure ...	620
Total ...	32,404

The coaching earnings from the several classes of passengers are shown below:—

	No.	Rs.
First class	142	257
Second do.	1,222	1,070
Third do.	1,32,837	35,429
Total ...	1,34,201	36,756
Other Receipts		1,616
Total Coaching ...		38,372

The following table details the goods traffic under the heads of classification:—

	Tons.	Rs.
Merchandise, general	12,358	27,493
Military stores	1	1
Railway materials for construction ...	5,515	2,342
Coal	...	...
Revenue stores	29	12
Total Goods ...	17,903	29,848
Rents, &c.	...	262
Total ...		30,110

The principal commodities carried were—

	Tons.	Rs.		Tons.	Rs.
Cotton, manufactured ...	267	879	Provisions	343	835
Grain and pulse	5,661	12,410	Salt	1,112	2,793
Metals	186	529	Stone and lime	603	678
Oil-seeds	603	1,154	Sugar	379	1,008
			Wood	1,018	1,015

The working expenses of the line are charged, under the contract, at the percentage on gross earnings prevailing on the Rajputana-Malwa Railway system subject to the maximum of 50 per cent.

Southern Mahratta Railway System (*Metre Gauge*).

The result of the year's transactions, as compared with 1896, is shown in the subjoined table:—

	1896.	1897.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	91,62,980	94,08,260	+2,45,280
Working expenses (including contribution to Provident Fund).	51,94,203	53,65,639	+1,71,436
Net earnings	39,68,777	40,42,621	+73,844
Percentage of expenses on gross earnings.	56·68	57·03	+0·35
	Train miles.	Train miles.	Train miles.
Train mileage	3,712,158	4,113,225	+401,067
	Rs.	Rs.	Rs.
Receipts per train mile	2·46	2·28	—0·18
Expenses do.	1·39	1·30	—0·09
Net receipts do.	1·06	0·98	—0·08
	Miles.	Miles.	Miles.
Open mileage	1,556·20	1,556·20	*Nil.*
	Rs.	Rs.	Rs.
Receipts per open mile	5,888	6,046	+158
Expenses do.	3,337	3,448	+111
Net receipts do.	2,550	2,598	+48
Percentage of net earnings on total capital outlay, including suspense	3·24	3·28	+·04

The following table gives the details of earnings and working expenses for 1897 compared with 1896 :—

	1896.	1897.	Difference.
	Rs.	Rs.	Rs.
Earnings.			
Coaching	36,00,019	30,57,058	—5,42,961
Goods	53,83,823	61,72,555	+7,88,732
Electric telegraph	31,922	37,473	+5,551
Sundries	1,47,216	1,41,174	—6,042
Total ...	91,62,980	94,08,260	+2,45,280
Working Expenses.			
Maintenance of way, works and stations...	11,73,582	11,92,892	+19,310
Locomotive expenses	17,88,491	19,07,538	+1,19,047
Carriage and wagon expenses ...	4,04,082	3,86,627	—17,455
Traffic expenses	9,06,091	9,05,191	—900
General charges	8,16,993	8,62,181	+45,188
Special and miscellaneous expenses ...	67,004	*89,595	+22,591
Total ...	51,56,243	53,44,024	+1,87,781
Contribution to Provident Fund ...	37,960	21,615	—16,345
Total working expenses ...	51,94,203	53,65,639	+1,71,436
Net earnings	39,68,777	40,42,621	+73,844

* Includes Rs. 16,403 contribution to the Provident Fund on account of 50 per cent. of the compulsory deposits.

The mean mileage worked during the year was the same as in 1896, *viz.*, 1,556·20.

The gross earnings rose from Rs. 91,62,980 in 1896 to Rs. 94,08,260, or by Rs. 2,45,280, and the working expenses from Rs. 51,94,203 to Rs. 53,65,639. Thus the net earnings improved by Rs. 73,844, having risen from Rs. 39,68,777 in 1896 to Rs. 40,42,621.

The improvement in gross earnings is due to a substantial increase under Goods Traffic chiefly owing to the movement of food-grains during the famine. The coaching traffic, however, declined on account of plague restrictions.

Earnings.

The following table compares the coaching traffic during 1897 with that of 1896 :—

	1896.		1897.		Difference.	
	No.	Rs.	No.	Rs.	No.	Rs.
First class ...	18,022	1,04,364	18,917	99,714	+895	—4,650
Second do. ...	56,937	1,44,001	54,691	1,31,521	—2,246	—12,480
Third do. ...	7,396,506	29,90,546	6,346,889	24,81,027	—1,049,617	—5,09,519
Total ...	7,471,465	32,38,911	6,420,497	27,12,262	—1,050,968	—5,26,649
Other Receipts ...	...	3,61,108	...	3,44,796	...	—16,312
Grand Total ...	7,471,465	36,00,019	6,420,497	30,57,058	—1,050,968	—5,42,961

The total coaching traffic has, on account of plague restrictions, fallen off during the year, the net decrease being Rs. 5,42,961.

The following table shows the fluctuations in goods traffic as compared with the traffic for 1896 :—

	1896-97.		1897-98.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
General merchandise.	841,276	49,69,471	885,476	56,65,398	+44,200	+6,95,927
Military stores ...	1,088	13,715	1,392	16,061	+304	+ 2,346
Railway materials for construction.	19,273	18,102	12,508	23,922	—6,765	+ 5,820
Coal for the public.	4,913	21,925	6,349	30,329	+1,436	+ 8,404
Do. for construction.	...	...	...	...	...	...
Do. for revenue.	34,611	2,03,378	52,199	2,74,870	+17,588	+ 71,492
Revenue stores ...	102,950 No.	1,22,090	106,873 No.	1,23,380	+3,923 No.	+ 1,290
Live-stock ...	9,401	8,683	8,926	14,223	—475	+ 5,540
Rents, miscellaneous, &c.	...	26,459	...	24,372	...	— 2,087
Total ...	1,004,111	53,83,823	1,064,797	61,72,555	+60,686	+7,88,732

The total goods traffic increased by Rs. 7,88,732. The increase is in a great measure attributable to the heavy exportation of food-grains from the Mysore Province to the Poona and Bijápur Branches, as also to the Kolhápur State Railway :—

The fluctuations in the more important commodities carried during 1897 are shown in the following statement :—

	1896.		1897.		Difference.	
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.
Coal and coke	4,913	21,925	6,349	30,328	+1,436	+8,403
Cotton, raw	64,864	4,03,330	47,590	2,76,890	—17,274	—1,26,440
Do. manufactured	17,909	2,27,263	18,146	2,32,020	+237	+4,757
Drugs and chemicals	2,174	21,401	1,966	23,656	—208	+2,255
Dyes and tans	24,793	1,38,716	28,474	1,38,232	+3,681	—484
Grain and pulse	277,663	15,30,604	320,678	23,25,927	+43,015	+7,95,323
Hides and skins	8,260	67,139	9,190	72,748	+930	+5,609
Horns	358	3,990	333	3,139	—25	—851
Jute	10,643	70,563	9,127	71,598	—1,516	+1,035
Lac	37	228	30	234	—7	+6
Leather, manufactured ...	501	4,318	521	4,992	+20	+674
Liquors	8,971	55,553	9,330	57,777	+359	+2,224
Metals	17,651	1,63,467	17,904	1,56,104	+253	—7,363
Oils	23,068	1,56,913	25,512	1,80,206	+2,444	+23,293
Oil-seeds...	64,754	3,55,523	27,076	1,50,974	—37,678	—2,04,549
Opium	7	146	6	93	—1	—53
Paper and paste-board ...	544	7,521	656	9,577	+112	+2,056
Provisions	54,918	3,76,894	49,142	3,28,706	—5,776	—48,188
Railway plant, &c.	861	4,063	1,079	6,091	+218	+2,028
Salt	44,404	3,12,224	51,523	4,06,538	+7,119	+94,314
Saltpetre	432	3,688	449	3,015	—33	—673
Silk, raw...	174	3,587	213	4,345	+39	+758
Silk piece-goods	.....	11	2	58	+2	+47
Spices	28,758	2,10,704	35,366	2,85,758	+6,608	+75,054
Stone and lime	23,766	54,181	22,230	48,474	—1,536	—5,707
Sugar	53,462	2,94,322	44,219	2,37,629	—9,243	—56,693
Tea	32	682	64	1,112	+32	+430
Timber	52,458	1,63,390	48,749	1,35,414	—3,709	—27,976
Tobacco	9,371	56,501	9,416	63,212	+45	+6,711
Wool, raw	245	3,935	176	2,737	—69	—1,198
Do. manufactured	864	11,550	818	10,415	—46	—1,135
Total ...	796,90	47,24,332	786,334	52,67,999	—10,571	+5,43,667

While the traffic in oil-seeds, cotton raw, sugar, provisions and timber shows decreases of Rs. 2,04,549, Rs. 1,26,440, Rs. 56,693, Rs. 48,188 and Rs. 27,976, respectively, that in grain and pulse, salt and spices, has increased by Rs. 7,95,323, Rs. 94,314 and Rs. 75,054 respectively.

The increase in food-grains is largely due to heavy exports from the Mysore Province and that in salt is due to heavy imports to Bangalore and Mysore stations, while that in spices is due to large export of chillies from Poona and Harihar Branch to Bellary-Kistna Section.

The decrease under Oil-seeds and Cotton is in a great measure due to the failure of crops and the consequent drop in the bookings of these commodities to foreign lines chiefly *viâ* Poona and Hotgi; under other heads the decrease is due apparently to the slackness of the Bombay market on account of plague.

The receipts from Telegraph Traffic increased by Rs. 5,551 and Sundry Traffic decreased by Rs. 6,042.

Working Expenses.

The principal variations in the working expenses were increases under:—

	Rs.
Maintenance of way, works and stations	19,310
Locomotive expenses	1,19,047
General charges	45,188
Special and miscellaneous expenditure	22,591

and decreases under:—

	Rs.
Carriage and wagon expenses	17,455
Traffic expenses	900

The increase under "Maintenance of Way and Works" was due chiefly to payment of compensation for dearness of grain and that under "Locomotive Expenses" to an increase in the train mileage run during the year and to the movement of larger quantities of fuel for consumption. Under "General Charges" the increase was caused entirely to the payment to Government of the $\frac{7}{10}$th share of the cost of police employed on the ceded portions of the Mysore lines from March 1896 to December 1897 and arrear charges for the detective police employed on the line within the Madras Presidency, while that under "Special and Miscellaneous Expenditure" was due to 50 per cent. of the compulsory deposits to the Southern Mahratta Railway Provident Fund during the half-year ending December 1897 being charged to the working expenses and to payment on account of commission and stamp duty on debentures raised in England.

The decrease under "Carriage and Wagon Expenses" was due to fewer vehicles having been repaired and fitted with Jones' patent buffers owing, in a great measure, to the insufficiency of labour in the shops in consequence of plague.

The contribution to Provident Fund increased by only Rs. 58, made up as under:—

	Rs.
50 per cent. of compulsory deposits for 2nd half of 1897 included under Abstract "G" as working expenses	+16,403
One per cent. of the net earnings for 1st half of 1897 and half per cent. of net earnings for 2nd half of 1897	+21,615
Contribution for 1896	—37,960

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY.

(Including the Jetalsar-Rajkot and Jamnagar Railways).

The revenue expenditure for the year 1897 of the Bhavnagar-Gondal-Junagad-Porbandar Railway, including the Jetalsar-Rajkot Railway, on an open mileage at close of the year of 379·69 miles was Rs. 55·41 per cent. of the gross earnings, yielding a net revenue of Rs. 9,03,801.

The gross traffic earnings for the year amounted to Rs. 20,26,893 and the expenditure to Rs. 11,23,092, leaving net earnings of Rs. 9,03,801, this sum being Rs. 1,69,712 less than the net earnings in 1896.

The gross earnings are made up as under :—

	Rs.	a.	p.
Coaching	9,99,586	1	1
Goods	9,54,135	2	5
Telegraph	16,846	3	0
Sundries	56,325	5	1
Total ...	20,26,892	11	7

The coaching earnings show a decrease of Rs. 1,33,206, or 11·76 per cent. and goods revenue a decrease of Rs. 38,109 or 3·84 per cent.

Revenue expenditure amounted to Rs. 11,23,092, or Rs. 55·41 per cent. of the gross earnings, against 50·71 per cent in 1896.

The percentage on total earnings of the several heads of Revenue expenditure, as compared with 1896, are given in the following table :—

	1896.	1897.
Maintenance	12·08	13·47
Locomotive expenses	15·30	16·79
Carriage and wagon expenses ...	2·58	3·10
Traffic expenses	9·44	10·50
General charges	9·41	9·64
Miscellaneous charges	1·90	1·91
	50·71	55·41

The net revenue (exclusive of Jetalsar-Rajkot Railway and Jamnagar Railway), Rs. 8,19,080, gives a percentage of dividend of 4·58 per cent. on the total capital outlay to end of 1897, Rs. 1,76,53,652. The shares of the different States in the net revenue, and the percentages on their capital outlay, are as follows :—

	Net Revenue. Rs.	Percentages.
Bhavnagar share	4,32,135	6·06
Junagad share	1,04,550	2·68
Gondal-Porbandar share	2,83,805	4·29

The capital outlay to end of year, net earnings of the year and percentage of net earnings to capital outlay on the B.-G.-J.-P. system and Jetalsar-Rajkot and Jamnagar Railways were Rs. 2,14,51,653, Rs. 9,32,754 and 11·33 respectively.

Departmental Expenditure.

Maintenance.—The expenses under this head in 1897 amounted to Rs. 2,72,952 against Rs. 2,63,200 in 1896, showing an increase of Rs. 9,752 due to a certain extent to additional rails and sleepers renewed.

Locomotive.—The locomotive expenses, including the Jetalsar-Rajkot and Jamnagar Railways, amounted to Rs. 3,55,025 against Rs. 3,33,359 in 1896, giving an average cost per train-mile of annas 9·20 against 8·96 and per 1,000 gross ton-miles of Rs. 3·52 against Rs. ·70.

Under the head of Locomotive Expenses the increase in expenditure is explained by higher rates paid for Cardiff coal and to increased consumption of coal on the opening of the Jamnagar Railway, also on account of the latter an increase is shown under wages of drivers and firemen.

The consumption of coal amounted to tons 7,086·72 against 6,858·91 in 1896, and the average cost per ton comes to Rs. 22·93 against Rs. 21·03.

The consumption and cost per train-mile was lbs. 25·53 against 25·82, and annas 4·18 against annas 3·88 respectively.

The coal premium for the year was Rs. 1,644 against Rs. 490 in the preceding year, and the amount accounted for during the year was Rs. 1,875 against Rs. 357.

The watering expenses amounted to Rs. 5,672 against Rs. 4,934 in 1896. These include contract labour for supply of water at locomotive stations and charges incurred for working pumping engines at Bhavnagar Para and Jetalsar.

Carriage and Wagon Expenses.—The carriage and wagon expenses, including Jetalsar-Rajkot and Jamnagar Railways, amounted to Rs. 65,732 against Rs. 55,780 in 1896. The vehicle-miles run by home vehicles were 13,173,549 against 10,908,911. The average cost per 1,000 vehicle-miles run worked out to Rs. 4·99 against Rs. 5·11.

Traffic Expenses.—The total expenses under this head amounted to Rs. 2,12,910 against Rs. 2,05,518 in 1896. This increase is mainly due to the staff, &c., for steamer service being debited to the head "Station Staff" instead of as formerly to the Bhavnagar State.

General Charges and Special and Miscellaneous Expenditure.—The percentage of the above on the gross earnings of the year compare as follows with the figures for 1896 :—

	1896.	1897.
General charges	8·46	9·64
Special and miscellaneous expenditure ...	1·35	1·91

The expenditure reviewed in the foregoing paragraphs is summarised and compared with similar figures in 1896 in the following table :—

	1896.			1897.		
	Expenditure.	Percentage on Gross Receipts.	Cost per Train-mile.	Expenditure.	Percentage on Gross Receipts.	Cost per Train-mile.
	Rs.	Rs.	Annas.	Rs.	Rs.	Annas.
Maintenance	2,63,200	12·08	7·08	2,72,952	13·47	7·36
Locomotive expenses	3,33,359	15·30	8·96	3,40,391	16·79	9·44
Carriage and wagon expenses	55,779	2·58	1·50	62,804	3·10	1·76
Traffic expenses	2,05,518	9·44	5·53	2,12,910	10·50	5·76
General charges	2,05,025	9·41	5·51	1,95,384	9·64	5·18
Steam boat service	...	...	...	...	...	...
Special and miscellaneous expenditure ...	41,600	1·90	1·12	38,650	1·91	·96
Total ...	11,04,481	50·71	29·70	11,23,092	55·41	30·46

Coaching Traffic.

The gross earnings amounted to Rs. 9,99,586 against Rs. 11,32,792 in 1896, a decrease of Rs. 1,33,206 or 11·76 per cent.

The unit mileage of passenger traffic compares as follows with previous years :—

Class.	Unit Mileage.						
	1891.	1892.	1893.	1894.	1895.	1896.	1897.
1st class	195,276	210,216	319,793	335,462	316,950	312,662	340,117
2nd do.	1,259,941	1,224,940	1,549,810	1,875,956	2,002,026	2,191,387	2,419,678
3rd do.	50,659,189	49,935,749	62,616,636	64,989,626	67,224,161	68,532,906	61,860,497
Total of all Classes ...	52,634,542	51,370,905	64,486,239	67,201,044	69,543,137	71,036,955	64,620,292

The total number of passengers carried was 1,953,381 against 2,081,890 in 1896, a decrease of 128,509 or 6·17 per cent.

There was an increase in number and receipt of 1st and 2nd class passengers due to the accommodation of the classes having been more freely used by passengers to and from the B. B. & C. I. Railway, probably due to the plague.

There was a decrease in number and receipts from 3rd class passengers owing to the prevalence of plague in the Bombay Presidency and the consequent restrictions of quarantine at various places.

The average distance over which a passenger was carried was 33·63 against 34·12 in the previous year.

The number of trains run in 1897 compares as follows with the year 1896 :—

	1896.	1897.	Increase.	Decrease.
Mails	732	730	...	2
Mixed	4,128	4,111	...	17
Passenger specials	46	34	...	12

Decrease of two mail trains was due to leap year.

Decrease of 17 mixed trains was due to leap year *plus* three extra trains.

The decrease in special passenger trains was due to the number of special trains run in 1896 being abnormal.

The following table shows the comparison of certain figures connected with coaching working with former years :—

	1891.	1892.	1893.	1894.	1895.	1896.	1897.
Average earnings per train-mile ... ... Rs.	3·02	2·99	3·51	3·37	3·53	3·57	3·19
Average No. of units in a Train—							
1st class ... ... No.	0·72	0·77	1·10	1·06	1·02	0·99	1·04
2nd do. ... ... „	4·67	4·51	5·35	5·94	6·42	6·91	7·38
3rd do. ... ... „	187·53	183·75	215·97	205·62	215·60	216·19	188·62
Total passenger units ... ... „	192·92	189·03	222·42	212·62	223·04	224·09	197·04
Other coaching traffic ... ...Tons.	·67	·78	·89	·85	·84	·92	·88
Average No. of vehicles in a coaching train—							
1st class ... ... Nos.	1·35	1·40	1·44	1·40	1·34	1·27	1·46
2nd do. ... ... „	1·61	1·61	1·54	1·57	1·62	1·66	1·90
3rd do. ... ... „	11·98	11·12	11·46	11·44	11·33	10·78	11·66
Others ... ... „	·61	·66	·77	·76	·72	0·63	·70
Brakes... ... . „	2·79	2·81	2·59	2·63	2·63	2·60	2·58
Total ... ... „	18·34	17·60	17·80	17·80	17·64	16·94	18·30
Average cost of hauling a coaching train ... Rs.	1·88	1·99	1·76	1·75	1·83	1·71	1·64
Passenger train-mileage per mean mile open ... Nos.	809	814	869	841	831	845	819
Gross Pasger. earnings per mean mile open ... Rs.	2,442	2,432	3,055	2,836	2,934	3,019	2,608

Goods Traffic.

The receipts amounted to Rs. 9,70,682, or 2,68,568 tons (excluding railway material) against Rs. 9,92,244, or 258,811 tons in the year 1896, showing a decrease in receipts of Rs. 21,562 or 2·17 per cent., and an increase in weight of tons 9,757 or 3·77 per cent.

The decrease in receipts and increase in weight was due to the carriage of a large quantity of low-class-rate goods, such as grain and consequent less freight realisation.

The principal decreases occur in the following commodities :—

Coal and Coke.—Rs. 10,566, tons 2,769, due to less carriage of coal for the Morvi Railway and for ginning factories.

Cotton, Raw.—Rs. 67,552, tons 14,360, due to less outturn of cotton in Kathiawar.

Metals.—Rs. 9,131, tons 2,142, due to less demand of machinery by factories, &c.

Oil-seeds.—Rs. 9,812, tons 2,995, due to less export of til, the local crop having been poor.

Increases occurred in the following staples :—

Grain and Pulse.—Rs. 41,350, tons 11,582, due to larger imports from Bombay *viâ* sea.

Sugar.—Rs. 10,272, tons 2,142, due to heavier imports owing to greater demands.

The receipts and tonnage of railway materials carried for construction purposes compare as follows :—

	Rs.	Tons.
1896	4,058	4,742
1897	11,587	17,387

Increase Rs. 7,529, tons 12,645, which was due to a larger number of ballast trains run on the Bhavnagar Section for the new station at Bhavnagar in course of construction.

In the above figures the results shown include the working of the Jetalsar-Rajkot and Jamnagar Railways, but the earnings of coaching and goods traffic are shown separately below :—

Jetalsar-Rajkot Railway—

Open mileage on the 31st December 1897, 46·23.

Coaching.—The gross earnings amounted to Rs. 1,47,864 against Rs. 1,48,748 in the previous year.

Decrease of Rs. 884, or 0·59 per cent.

The total number of passengers carried was 320,237 against 329,309 in 1896. Decrease in receipts and number of passengers carried was due to the restrictions imposed on the public owing to plague.

Goods.—The receipts amounted to Rs. 54,058 against Rs. 45,238 in the previous year. An increase of Rs. 3,820 or 8·44 per cent., due principally to increased grain traffic to other parts of the railway.

Jamnagar Railway—

The line was opened for coaching and goods traffic on the 8th April 1897.

Open mileage on the 31st December 1897 was 54·28.

Coaching.—The gross earnings amounted to Rs. 67,235. The total number of passengers carried was 112,452.

Goods.—The gross earnings amounted to Rs. 16,509.

The following table shows the comparison of certain figures connected with goods working :—

	1891.	1892.	1893.	1894.	1895.	1896.	1897.
Average weight of a goods train—							
Freight ... ... Tons.	62·50	60·81	58·31	62·45	58·70	55·29	61·54
Dead weight ... ... „	114·02	114·24	119·04	118·12	119·02	104·87	125·29
Total ...	176·52	175·05	177·35	180·57	177·72	160·16	186·83
Average load of a goods vehicle (including loaded and empty) ... ... Tons.	2·48	2·45	2·27	2·45	2·39	2·83	2·42
Average load of a loaded goods vehicle ... „	3·58	3·48	3·24	3·43	3·34	3·92	3·50
Average receipts per goods train-mile ... Rs.	3·23	3·27	3·37	3·42	3·40	3·57	3·46
Average cost of hauling a goods train-mile ... „	2·36	2·52	2·07	2·11	2·12	1·83	2·01
Average receipts per ton-mile ... ... Pies.	9·93	10·34	11·11	10·50	11·11	12·39	10·81
Average cost of hauling per ton-mile... ... „	7·26	7·97	6·82	6·48	6·95	6·35	6·26
Goods train mileage per mean mile open ... Nos.	580	663	852	685	762	732	683
Gross goods earnings per mean mile open ... Rs.	,876	2,169	2,872	2,338	2,588	2,613	2,366

Through booking between Bombay *viâ* Bhavnagar Docks and stations on the Bhavnagar-Gondal-Junagad-Porbandar Railway, including the Jetalsar,

Rajkot and Jamnagar Railways and Morvi Railway, continues under agreement with Messrs. Shepherd and Co.

On the system as a whole.

The fears expressed in last year's report that the year 1897 would not show good results owing to the effects of plague and famine on trade generally were amply verified, and the net profits dropped from 5·63 in 1896 (the best year in the history of the line) to 4·58 per cent. It may however be mentioned that only four years in the history of the line can show better results, *i.e.*—

1884	...	...	... 5·34
1893	...	...	... 5·16
1895	...	...	... 4·67
1896	...	...	... 5·63

so that though the profits have fallen below five per cent. still a fair return is shown, and this in the face of probably the most paralysed condition of trade that has been known in Kathiawar since the line was opened for traffic.

The gross earnings of the line fell one-and-a-half lakhs below the earnings of 1896, and the decrease occurred entirely in the first half-year, when the earnings fell from Rs. 12,53,906 in 1896 to Rs. 10,99,441 and the net earnings from Rs. 7,07,135 to Rs. 5,58,368.

The earnings for the 2nd half of the year show only a small decrease of Rs. 4,773; but it is worthy of note that whilst in coaching there was a decrease of Rs. 47,708, in goods there was an increase of Rs. 34,929 over 1896, and no doubt the decrease in coaching earnings is due to the prevalence of plague in the Bombay Presidency and the consequent restrictions imposed upon the free movement of passengers between Kathiawar and the main land.

The percentage of working expenses to gross earnings for 1897 was Rs. 55·41 against Rs. 50·71 in 1896, though every effort was made to reduce working expenses to a minimum.

The gross earnings of the several sections compared with 1896 are as follows:—

	1896.		1897.	
	1st Half.	2nd Half.	1st Half.	2nd Half.
	Rs.	Rs.	Rs.	Rs.
Bhavnagar	6,48,757	3,52,012	5,32,929	3,47,184
Gondal-Porbandar	4,20,947	2,48,974	3,98,882	2,54,010
Junagad	1,83,162	1,25,111	1,66,506	1,20,112

Thus in the 1st half of the year 1897, the Bhavnagar Section was Rs. 1,15,828 behind its earnings of the previous year. Gondal-Porbandar were Rs. 22,065 and Junagad Rs. 16,656 less. In the 2nd half of the year the Bhavnagar Section showed a decrease of Rs. 4,828; Junagad, Rs. 4,999 and Gondal-Porbandar an increase of Rs. 5,036 over its earnings in the corresponding half-year of 1896.

The Bhavnagar Section therefore in 1897 suffered the gretest loss of traffic with Rs. 1,20,000 less receipts than the preceding year, and next the Junagad Section with a decrease of over Rs. 20,000, while the Gondal-Porbandar Section shows a decrease of only about Rs. 17,000.

Jetalsar-Rajkot Railway.—In spite of bad trade this railway continues to show an improvement in gross earnings. The figures for 1896 were Rs. 1,97,117, while in 1897 they rose to Rs. 2,05,253. The percentage of net earnings for the year 1897 on capital outlay, including suspense, was Rs. 5·47 against Rs. 5·51

in 1896. The reason of the small decrease in the dividend is due to the capital expenditure at end of 1897 standing at a higher figure than 1896 and calls for no special remarks. Had it not been for the depression in trade all over the province, this railway would have paid 7 per cent. or more.

Jamnagar Railway.—This line was only opened for traffic in April 1897. The earnings for the 2nd half of the year amounted to Rs. 54,443 and the percentage of net earnings to capital outlay was only 0·61 per cent. It must however be remembered that the above figures represent the earning of the slack half of the year, and until the figures for a complete year's working are seen it would be premature to offer any remarks.

Morvi Railway (2′ 6″ *Gauge*).

The result of the year's transactions contrasts as follows with the results for 1896 :—

	1896.	1897.	Difference.
	Rs.	Rs.	Rs.
Gross earnings	3,86,883	4,27,483	+40,600
Working expenses	2,05,262	2,15,842	+10,580
Net earnings	1,81,621	2,11,641	+30,020
Percentage of expenses on gross earnings ...	53·05	50·49	—2·56
	Train miles.	Train miles.	Train miles.
Train mileage	165,995	1,72,870	+6,875
	Rs.	Rs.	Rs.
Receipts per train mile	2·33	2·47	+0·14
Expenses do.	1·24	1·25	+0·01
Net receipts do.	1·09	1·23	+0·14
Open-mileage	94·36	94·36	.....
Receipts per open mile	4,100	4,100	.....
Expenses do.	2,176	2,287	+111
Net receipts do.	1,924	2,242	+318
Percentage of net earnings on total capital outlay to the end of the year	7·62	8·55	+0·93

The following table gives the details of earnings and working expenses for 1897 as compared with 1896 :—

	1896.	1897.	Difference.
	Rs.	Rs.	Rs.
Earnings—			
Coaching	2,53,048	2,50,023	—3,025
Goods	1,25,502	1,30,109	+4,607
Electric telegraph	5,761	47,351	+39,019
Sundries	2,571		
Total ...	3,86,882	4,27,483	+40,601
Working expenses—			
Maintenance of way, works and stations ...	40,136	42,147	+2,011
Locomotive expenses	74,381	77,702	+3,321
Carriage and wagon expenses	9,726	11,548	+1,822
Traffic expenses	42,870	44,318	1,448
General charges	37,489	36,800	—689
Special and miscellaneous expenditure ...	660	3,327	+2,667
Total, Working Expenses ...	2,05,262	2,15,842	+10,580

The mean mileage worked during 1897 was the same as in the previous year, viz., 94·36 miles.

The gross earnings increased from Rs. 3,86,883 in 1896 to Rs. 4,27,483, and the working expenses increased by Rs. 10,580. The net earnings also showed an increase of Rs. 30,020, having risen from Rs. 1,81,621 to Rs. 2,11,641.

The increase in gross earnings was almost wholly due to a payment of Rs. 40,000 made to this railway by the Wankaner State as rent for the use of the Machoo Bridge for horse and cart traffic in perpetuity.

Except as regards the above mentioned Rs. 40,000, which was an old item of adjustment, the goods and passenger traffic, in which there was no appreciable difference, remained steady.

With the general development of the traffic and opening during the year of the Jamnagar Branch of the B.-G.-J.-P. Railway which connected this line at Rajkot, far better receipts from passenger traffic were expected; an additional mixed train was actually run for some time, but the anticipations of increased traffic were not realized; this may be ascribed to plague restrictions.

The principal increases in working expenses were Rs. 2,011 under "Maintenance of Way, Works and Stations"; Rs. 3,320 under "Locomotive"; Rs. 1,822 under "Carriage and Wagon Expenses"; Rs. 1,448 under "Traffic Expenses"; and Rs. 2,667 under "Special and Miscellaneous Expenses."

The increase under "Maintenance of Way, Works and Stations" was chiefly due to the heavier maintenance and renewal of the permanent-way, and widening the banks at miles 55 to 58; the increase under "Locomotive Expenses" was due to additional train miles run during the year; while that under "Carriage and Wagon Expenses" was due to larger repairs and renewals of carriages and wagons, as also to heavier charges under "Cleaning Carriages and Wagons and Oiling."

A larger supply of tarpaulins, stationery, books and forms, and the entertainment of temporary additional staff for an extra train account for the increase in traffic expenses.

Heavier charges under "Special and Miscellaneous Expenditure" account for the increase under this head.

BARSI LIGHT RAILWAY (2′ 6″ *Gauge*).

The line was opened for goods traffic on the 1st March and for passenger traffic on the 18th March 1897. The mileage worked was 21·75.

2. The gross earnings aggregated Rs. 1,07,778-0-11 made up thus: Goods Rs. 85,521-5-9, Coaching Rs. 19,940-12-0, and Telegraph and Sundries Rs. 2,315-15-2.

3. The gross expenses amounted to Rs. 86,218-6-9, in addition to which a sum of Rs. 1,614-10-2 is outstanding as interest on loan taken up by the Company.

The net earnings amounted to Rs. 21,559-10-2.

Chapter VIII.—Rates and Fares.

(*For the calendar year* 1897.)

GREAT INDIAN PENINSULA RAILWAY SYSTEM (*Standard Gauge*).

Coaching Fares.—No alteration was made in these fares during the year.

Goods Rates.—From 1st July 1897 in local booking and from 1st August 1897 in through booking, to equalise the Bombay and Howrah rates, special rates were quoted for certain descriptions of goods between Bombay and Jubbulpore and Nagpur, and *viâ* Nagpur for certain stations on the Bengal-Nagpur Railway; to equalise the Bombay and Madras rates, special rates were also quoted for certain descriptions of goods to and from Bombay and *viâ* Wadi for certain stations on the Nizam's Guaranteed State Railway.

Special rates were quoted in the following cases:—

Bonemeal at owner's risk from Agra Fort to Bombay *viâ* Itarsi from 1st January 1897 (reduced from Rs. 1-3-6 to Rs. 0-9-1 per maund.)

Machinery at owner's risk in full truck loads from Bombay to Cawnpore and *viâ* and to Cáwnpore Mill siding *viâ* Itársi from 1st April 1897 (reduced from Rs. 0-11-10 to Rs. 0-10-11 per maund.)

Cotton, full pressed, from Raichur to Bombay from 1st May 1897 (reduced from Rs. 0-14-7 to Rs. 0-11-0 per maund.)

Tanning bark at owner's risk to Bombay, Dádar and Coorla from Chandni, Mandwa, Manmad, Ahmednagar and stations between Bhusaval and Nagpur and stations between Sholapur and Raichur inclusive from 1st October 1897 (reduced from 4 annas per truck per mile to 3 annas.)

Sago, common, in consignments of not less than 340 maunds between Bombay and Jubbulpore and *viâ* from 1st November 1897 (reduced to Rs. 0-11-3 per maund.)

Food-grain and wheat from Bombay to Jubbulpore and *viâ* Jubbulpore from 1st March 1897 (reduced to Re. 0-8-6 per maund).

Grain and seeds from *viâ* Nagpur for traffic from Bengal-Nagpur Railway stations Naila to Assansole inclusive to Bombay from 1st March 1897 (reduced to Re. 0-4-6 per maund).

Kerosine oil at owner's risk in wagon loads from Bombay to Madras *viâ* Raichur and between Bombay and Southern Mahratta Railway Stations *viâ* Poona and Hotgi from 1st February 1897.

Food-grain and wheat from Bombay to all stations on the G. I. P. Railway between Nagpur and Jalamb including Khamgaon and Amraoti, and to stations between Mandwa and Mirganj from 1st April 1897.

Tin in sheets between Bombay and Nagpur and certain stations on the Bengal-Nagpur Railway *viâ* Nagpur from 1st November 1897.

Reduced truck rates quoted for hay during the famine from 1st December 1896 for Government and from 12th January 1897 for the public were cancelled and the old rates reverted to from 1st December 1897, except for traffic from Konkan Stations to Bombay for which a rate of 3 annas per truck per mile was introduced.

BOMBAY, BARODA AND CENTRAL INDIA RAILWAY SYSTEM (*Standard Gauge*).

RAJPUTANA-MALWA RAILWAY SYSTEM (*Metre Gauge*).

Coaching Rates and Fares.—No alteration of any importance was made in the ordinary fares or rates during the year.

Goods Rates.—The following important changes in goods rates were, however, made :—

(*a*) *Reduced rates for Grains.*—In consequence of the general scarcity in Rájputána, the North-Western Provinces and the Punjab, and in view of the possibility of American wheat being imported, further reduced rates were quoted with effect from the 20th March 1897 for edible grain booked downwards from Bombay to Ajmere, but as these rates were not availed of they were withdrawn with effect from the 1st July 1897.

(*b*) *Famine rates for Cattle, Fodder, Hay, &c.*—With effect from the 1st February 1897 special reduced rates were quoted at the instance of Government. As their continuation beyond the 30th September 1897 was considered unnecessary, they were withdrawn with effect from the 1st October 1897.

(*c*) *Alteration in minimum weight.*—With effect from the 1st October 1897 the existing minimum of 200 maunds per consignment of hides and skins, dry or wet, at owner's risk, was altered to 125, and multiples of 125 maunds per consignment in conformity with alterations made on neighbouring railways.

Southern Mahratta Railway System (*Metre Gauge*).

Coaching Fares.—The only important change was the issuing from 1st October 1897 of return tickets available for 6 months at single fares to European Non-Commissioned Officers and men of the British Army and their families proceeding to the hills on furlough at their own expense.

Goods Rates.—From 1st January 1897, special rates were quoted for jagree, ground-nuts, ground-nut seeds, tobacco, tobacco dust, jute and chillies from Kolhapur to Bombay (for Niphâni traffic) to divert the traffic from the Chiplun route.

From 1st February 1897, the rate for fodder was, on account of famine, specially reduced to one anna per wagon per mile, and from the 10th August, the rates were increased to a sliding scale varying by distances from 2 annas to 1½ annas per wagon per mile. From 1st February, the rates for cattle were specially reduced by 50 per cent. on account of famine.

From 1st February 1897, the special rates for kerosine oil between Bombay and Southern Mahratta Railway Stations were revised and slightly reduced where necessary to compete with the Pattimar route.

From 1st April 1897, special rates were quoted for salt from *via* Dadar to all Southern Mahratta Railway Stations for traffic from B. B. & C. I. Railway Stations to divert the traffic from the Pattimar route.

From 1st June 1897, special through rates for Mowra flowers from certain B. B. & C. I. Railway Stations to Dhárwár were introduced to divert the traffic from the sea route to the direct rail route.

From 1st November 1897, a special rate of 3 annas per maund was quoted for grain and seeds between Bangalore and *viâ* Guntakal (for traffic to Raichur and *viâ*) to induce the traffic to follow the shortest route.

Bhavnagar-Gondal-Junagad-Porbandar Railway.

(Including Jetalsar-Rajkot and Jamnagar Railways.)

Coaching.—From 1st May 1897, polo terms attending tournaments and hunting parties contesting annual cups were allowed the concession of first and second-class return tickets available for two months at single fares to the riders.

Goods.—From 1st April 1897, to assimilate with neighbouring Railways, alternative (Railway and owner's risk) rates were introduced for dangerous goods for which there was only one rate; the existing rate being retained as the owner's rate, and the next higher class being made the Railway risk rate; and in cases in which the existing rate was fifth class, a Railway risk rate was created at 1½ pies per maund per mile with the usual terminal.

Morvi Railway.

Coaching.—Through-booking of horses with foreign Railways was established on and from 15th March 1897. The rates and rules are the same as for local booking.

Goods.—Rules to regulate the carriage by rail of liquified compressed carbonic acid gas in wrought iron cylinders or solid drawn steel flasks were introduced from 1st January 1897, as per Bombay Government Resolution No. 2016 D/, 22nd August 1897.

The rates *viâ* Rajkot Junction for booking with stations on the Rajkot Jetalsar Railway were applied to stations on the Jámnagar Railway from the 1st February 1897.

Amber, Jade and Jade-stone were added to the list of excepted articles specified in the second schedule of Act IX of 1890, with effect from 1st March 1897.

From the 5th July 1897 all goods booked *viâ* Wadhwan Junction to or from stations on the B. B. & C. I. Railway and on Railways reached *viâ* the B. B. & C. I. Railway were reduced by three pies per maund.

HIS HIGHNESS THE GAEKWAR'S DABHOI RAILWAY (2′ 6″ *Gauge*).

BARSI LIGHT RAILWAY (2′ 6″ *Gauge*).

No important alterations were made during the year in the rates and fares on these Railways.

Chapter IX.—Miscellaneous.

Persons employed.

(*For the official year ending 31st March 1898*).

During the year the following officers were present for duty :—

Government Supervision and Control.

Secretary to Government of Bombay, Railway Department, and Consulting Engineer for Railways—Lieut.-Colonel H. O. Selby (on privilege leave from 10th August to 15th October 1897, when Mr. J. Willcocks officiated).

Colonel Selby proceeded on 2 years' furlough from 19th March 1898.

Mr. G. A. Anderson officiating from 20th March 1898.

Under Secretary to Government, Railway Department, and Deputy Consulting Engineer for Railways—Mr. R. C. Dyson (until 18th May 1897).

Mr. J. Willcocks, from 19th May to 9th August 1897.

Mr. J. Adam officiated from 10th August to 15th October 1897; and again from 18th October 1897 to 2nd January 1898 (Mr. J. Willcocks being on leave).

Mr. J. Willcocks returned to duty from 3rd January 1898.

Deputy Consulting Engineers for Railways—

Mr. J. Willcocks, until 19th May 1897.

Mr. J. Adam, from 13th May to 9th August 1897 and from 3rd January 1898.

Mr. W. R. Shaw, until 13th May 1897.

Captain O. M. R. Thackwell, R.E., until 6th October 1897.

Captain W. D. Waghorn, R.E., from 1st April to 21st June 1897 and from 8th to 31st March 1898.

Mr. F. D. Couchman, from 10th August to 29th November 1897.

Mr. H. A. F. Currie, from 29th November 1897 to 25th February 1898.

Mr. J. N. D. LaTouche, from 25th February 1898.

Examiner of Guaranteed Railway Accounts, Bombay—

Major C. R. Hoskyn, R.E. (privilege leave from 9th July to 8th October 1897.)

Mr. W. F. O'Donoughe officiated during Major Hoskyn's absence.

Mr. C. E. Ross (privilege leave from 15th February to 14th April 1897); transferred on 14th September 1897 to Dharwár.

Deputy Examiners of Guaranteed Railway Accounts, Bombay—

Mr. C. Muirhead, until 15th May 1897.

Mr. A. H. Wollaston, from 29th July to 31st October 1897.

Mr. W. Rabbitt.

Mr. C. S. B. Sinclair, until 27th April 1897.

Lalla Jai Kishen; from 23rd April 1897 to 31st March 1898.

Examiner of Railway Accounts, Dharwar—

Mr. J. Shaw (privilege leave from 16th September to 16th December 1897).

Mr. C. E. Ross officiating from 16th September to 28th October 1897.

Mr. R. C. F. Volkers, from 29th October 1897.

Heads of Departments of each Railway.

G. I. P. RAILWAY.

Bombay.

Agent—Mr. G. A. Barnett, C.I.E. (on leave from 20th August to 19th November 1897, during which period Mr. H. Wenden, Chief Engineer, acted as Agent).

Chief Auditor—Mr. S. Gore-Browne (on leave for three months from 16th May 1897, during which period Mr. C. Newborn, 1st Assistant Auditor, acted as Chief Auditor).

Chief Engineer—Mr. H. Wenden.

General Traffic Manager—Mr. H. Conder (resigned from 3rd September 1897).

Mr. E. W. Keily officiated till 18th November 1897.

Mr. A. Muirhead assumed charge from 19th November 1897.

Locomotive Superintendent—Mr. R. L. Trevithick (furlough for 12 months from 16th May 1897).

Mr. S. J. Sarjant acting.

General Storekeeper—Mr. A. King (Mr. J. C. P. Maynard acted till 3rd October 1897).

Telegraph Superintendent—Mr. G. R. Webb.

Superintending Surgeon—Dr. W. Kay (furlough from 20th March 1897 to 19th May 1898); resigned from 19th May 1898.

Dr. W. Field acted during Dr. Kay's absence on furlough and was confirmed in the appointment from 20th May 1898.

Superintendent of Police (Poona)—Messrs. H. R. Hume and F. L. Goldsmid in succession.

B. B. & C. I. RAILWAY (INCLUDING RAJPUTANA-MALWA RAILWAY).

Bombay.

Agent—Lieut.-Colonel H. D. Olivier, R.E. (leave from 20th April to 4th June 1897 and furlough from 18th September to 10th December 1897).

Mr. I. O'Callaghan, General Traffic Manager, acted as Agent during Lieutentant-Colonel Olivier's absence.

Chief Auditor and Accountant—Mr. R. A. English (leave from 4th March to 10th May 1897).

Mr. L. E. Firth, Assistant Auditor, acted during Mr. English's absence.

General Traffic Manager—Mr. I. O'Callaghan (leave for 1 month and 17 days from 4th January 1898).

Mr. C. A. R. Crommelin, Traffic Manager, acted as General Traffic Manager during Mr. O'Callaghan's absence.

Chief Engineer—Mr. H. I. B. Hargrave (leave from 20th August to 22nd November 1897).

Mr. J. L. P. Hogan acted as Chief Engineer.

Traffic Manager—Mr. C. A. R. Crommelin.

Locomotive and Carriage Superintendent—Mr. E. S. Luard (leave from 26th June to 5th November 1897).

Mr. W. P. Johnson acted.

Chief Storekeeper—Mr. R. Woollcombe.

Telegraph Superintendent—Mr. J. Franklin.

Chief Medical Officer—Dr. A. H. Deane (furlough for 10 months from 1st May 1897).

Surgeon-Captain L. F. Childe acted during Dr. Deane's absence.

Assistant Superintendent of Police—Messrs. R. M. Phillips and W. G. Clabby in succession.

Ajmere.

Engineer-in-Chief—Mr. W. Harvey.

Traffic Superintendent—Mr. J. Conder (furlough for 12 months from 8th January 1898).

Mr. D. ff. Powell.

Locomotive Superintendent—Mr. F. N. Gutersloh.

Carriage and Wagon Superintendent—Mr. J. J. Adler (leave for 12 months from 25th June 1897).

Mr. A. T. Houldcroft acting.

Deputy Storekeeper—Mr. G. R. Spencer.

Medical Officer (Bandikui)—Dr. W. Crofts.

Superintendent of Police, B. B. & C. I. and R.-M. Railways—Messrs. R. E. Acklom and G. J. Noble in succession.

SOUTHERN MAHRATTA RAILWAY.

Dharwar.

Agent—Major J. Burn Murdoch, R.E.

Chief Engineer—Mr. P. Scott (on furlough from 30th April to 5th December 1897).

Mr. A. R. Anderson acted during Mr. Scott's absence.

Auditor—Captain C. A. R. Browne, R.E.

Traffic Manager—Mr. A. Muirhead proceeded to England on deputation on 20th February 1897.

Mr. T. J. McCloughin acted during Mr. Muirhead's absence and until Mr. Priestly took charge.

Mr. N. G. Priestly, from 23rd December 1897.

Locomotive and Carriage Superintendent (Hubli)—Mr. L. E. H. Brock.

Storekeeper (Hubli)—Mr. H. Carpenter.

Medical Officer (Hubli)—Dr. E. S. Chenai.

Superintendent of Police—Mr. F. H. Warden.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY.

Bhavnagar Para.

Manager and Engineer-in-Chief—Mr. W. H. White.

Examiner of Accounts—Mr. W. C. Hickie.

Traffic Superintendent—Mr. C. Carroll.

Locomotive and Carriage Superintendent—Mr. D. Wedderburn (proceeded on a year's furlough on 27th November 1897).

Mr. J. Blagrade acting during Mr. Wedderburn's absence.

Storekeeper—Mr. K. R. Vacha.

Medical Officer—Dr. N. F. Bunshaw.

MORVI RAILWAY.

Morvi.

Manager and Executive Engineer—Mr. W. H. White.
Resident Engineer and Traffic Superintendent—Mr. C. P. White.
Locomotive and Carriage Superintendent—Mr. M. B. Burke.
Auditor and Accountant—Mr. Hormusji Dinshaw.

BARSI LIGHT RAILWAY.

Barsi.

Agent and Resident Engineer—Mr. A. N. Alexander.

Schools.

The following tables give information in connection with the attendance at the various schools, and the receipts and expenses for the calendar year 1897 :—

GREAT INDIAN PENINSULA RAILWAY.

Local and District Schools.

Name and Location of Schools.	Attendance.				Annual Contributions.			Remarks.
	Children.		Apprentices and Workmen.					
	Number on the roll.	Average daily attendance.	Number on the roll.	Average daily attendance.	Railway Grant.	Average School Fees.	Total.	
					Rs. a. p.			
Church School, Jubbulpore	120	...	33	...	600 0 0	...	...	
Church School, Harda...	79	...	...	...	600 0 0	...	...	
Bishop's School, Nagpur	9	...	...	...	250 0 0	...	...	
St. Francis de Sales' R. C. School, Nagpur	48	...	...	...	267 8 0	...	...	
St. Joseph's Convent Branch School, Nagpur	36	...	...	...	209 8 0	...	...	
Mount Abu School	1	...	...	...	*809 5 4	...	...	

* For half-year to 30th June 1897. Bill for 2nd half of 1897 not yet received.

Railway Schools.

Name and Location of Schools.	Attendance.				Annual Contributions.				Annual Expenditure.	Remarks.
	Children.		Apprentices and Workmen.							
	Number on the roll.	Average daily attendance.	Number on the roll.	Average daily attendance.	Government Grant.	Railway Grant.	Average School Fees.	Total.		
					Rs a.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Average monthly fees— Rs. a. p.
G. I. P. Railway School, Parel	13	11	...	...	*Nil.*	570 3 6	*125 12 0	695 15 6	570 3 6	*11 6 10
G. I. P. Railway School, Igátpuri	49	36	...	...	1,153 0 0	3,349 10 0	*446 3 9	494 13 8	4,108 10 0	*44 9 11
G. I. P. Railway School, Bhusával	65	51	...	...	410 0 0	3,187 5 0	*587 1 0	4,184 6 0	3,520 5 0	*53 5 10
Joint Railway School, Khandwá	18	14	...	...	360 0 0	911 1 6	*167 10 0	1,438 11 6	911 1 6	*13 15 6
G. I. P. Railway School, Lonavla	78	62	...	...	874 0 0	3,159 7 1	*753 0 0	4,786 7 1	3,675 7 1	*75 4 9
G. I. P. Railway School, Sholápur	46	35	...	...	332 0 0	1,949 6 0	*408 9 0	2,689 15 0	2,169 6 0	*40 13 8
G. I. P. Railway School, Sháhábád	17	20	...	...	235 15 0	922 12 0	*232 4 0	1,390 15 0	1,086 12 0	*21 1 10

B. B. & C. I. Railway.

Local and District Schools.

Name and Location of Schools.	Attendance.				Annual Contribution.			Remarks.
	Children.		Apprentices and Workmen.					
	Number on the Roll on the 31st December 1897.	Average daily attendance.	Number on the Roll on the 31st December 1897.	Average daily attendance.	Railway grants including Boarding.	School fees and Boarding paid by parents.	Total.	
	No.	No.			Rs.	Rs.	Rs.	
St. Mary's College, Mazagon	6	4·33	...	...	530	549	1,079	
St. Peter's Girls' High School, Mazagon ...	1	1·25	...	...	150	150	300	
St. Peter's Boys' High School, Mazagon ...	3	2·21	...	...	363	363	725	
Bombay Education Society's School, Byculla .	2	3·50	...	...	477	573	1,050	
Convent Boarding School *via* Dadar	4	4·33	...	...	177	177	354	
St. Joseph's Convent School, Bandora ...	3	2·83	...	...	300	303	603	
St. Stanislaus' Institution, Bandora	3	1·50	...	...	81	81	162	
Lawrence Memorial Asylum, Murree	1	1	...	...	162	162	324	(Includes contribution for the half-year ending 30th June 1896 which was then under dispute.
Boys' High School, Oak Openings, Naini Tal .	3	1·75	...	...	244	326	570	
Wellesley's Girls' High School, Naini Tal ...	2	1·42	...	...	137	288	425	
Convent Day School, Fort	1	·58	...	...	28	40	68	
John Connon High School, Esplanade... ...	5	4·58	...	...	112	112	224	
Antonio DaSilva's Anglo-Portuguese School, Lower Mahim	1	·58	...	...	7	7	14	
Convent Girls' School, Lower Mahim... ...	3	3	...	...	60	60	120	
St. Xavier's College, Esplanade	3	2·29	...	...	16	16	32	
St. Mary's High School, Poona	2	1·83	...	...	286	286	572	
Bishop's High School, Poona	1	·92	...	...	140	157	297	
Convent of Jesus and Mary, Poona	1	1	...	...	108	108	216	
Indo-British Institution, Bori Bandar... ...	2	2	...	...	120	120	240	
Girls' High School, Girgaum	3	3	...	...	72	84	156	
Colaba High School	...	·17	...	...	6	14	20	
Taylor's High School, Poona	...	·50	...	...	87	87	174	
Convent School, Mhow	...	·42	...	...	37	38	75	
Convent School, Ajmere	...	·17	...	...	1	2	3	
Anglo-Indian School, Baroda	5	5·17	...	...	217	...	217	
Total ...	...	...	...	...	3,918	4,102	8,020	

Railway Schools.

Name and Location of Schools.	Attendance.				Annual Contribution.				Annual Expenditure.	Remarks
	Children.		Apprentices.		Government grant.	Railway grant.	School Fees.	Total.		
	Number on the Roll.	Average daily attendance.	Number on the Roll.	Average daily attendance.						
					Rs.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Parel Railway School ...	67	48	...	...	879	2,640	1,104 0 0	4,623 0 0	5,656 11 7	
Bulsar do. ...	11·27	11·22	...	...	...	150	112 0 0	262 0 0	300 0 0	
Ahmedabad do. ...	47·72	48·10	...	...	952	1,560	684 8 0	3,196 8 0	3,159 0 0	

Rajputana-Malwa Railway.

Local and District Schools.

Name and Location of Schools.	Attendance.				Annual Contribution.			Remarks.
	Children.		Apprentices and workmen.		School Fees.	Railway Grant.	Total.	
	Number on the Roll.	Average daily attendance.	Number on the Roll.	Average daily attendance.				
					Rs. a. p.	Rs. a. p.	Rs. a. p.	
Anglo-Vernacular School, A'bu Road ...	173·94	160·92	...	...	1,336 0 0	763 2 5	2,099 2 5	
Bengalee School, Ajmere	20·4	12·52	...	...	102 14 0	90 14 0	193 12 0	
Deccan do do.	12·0	11·95	...	...	96 0 0	96 0 0	192 0 0	
Parsi do do.	4·67	4·65	...	...	23 8 0	120 0 0	143 8 0	
Dyanand Ashram Anglo-Vedic School, Ajmere.	225·18	224·94	...	...	1,177 14 0	600 0 0	1,777 14 0	
Anglo-Vernacular School, Bandikui ...	102·09	84·09	...	...	222 12 0	551 12 0	774 8 0	
Edulji Pestonji School, Mhow	91·06	85·19	...	...	804 6 0	804 8 0	1,608 14 0	
Nuns' Boarding and Day School, Mhow.	39·0	38·932	...	...	409 0 0	180 0 0	589 0 0	
Station School, Delhi	9·5	9·4	...	...	290 0 0	218 0 0	508 0 0	

Railway Schools.

Name and Location of Schools.	Attendance. Children. Number on the Roll.	Attendance. Children. Average daily attendance.	Attendance. Apprentices. Number on the Roll.	Attendance. Apprentices. Average daily attendance.	Annual Contribution. Government grant.	Annual Contribution. Railway grant.	Annual Contribution. School Fees.	Annual Contribution. Total.	Annual Expenditure.	Remarks.
					Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Railway School, Mount Abu ...	45·1	43·1	...	...	...	9,374 8 5	5,549 0 0	14,923 8 5	14,923 8 5	
Do. Abu Road ...	27·60	28·28	...	...	...	304 5 0	536 8 6	840 13 6	840 13 6	
Do. Ajmere ...	45·25	36·95	...	...	1,200 0 0	600 0 0	792 0 0	2,592 0 0	2,076 0 0	
Railway Night School, Ajmere ...	...	...	36·42	36·02	...	838 0 0	.....	838 0 0	838 0 0	
Jonesganj Railway School, Ajmere.	34·083	26·46	...	...	...	333 15 0	68 6 0	402 5 0	571 2 0	
Jonesganj Night School, Ajmere.	...	...	17·5	12·31	...	8 9 0	.....	8 9 0	8 9 0	Opened from 1st November 1897.
Do. Drawing School do....	...	...	31·0	20·7	...	19 10 0	.....	19 10 0	19 10 0	Opened from 18th October 1897.
Railway School, Neemuch ...	17·18	11·6	...	...	360 0 0	867 9 0	357 1 0	1,584 10 0	1,647 3 0	
Do. Bandikui ...	56·08	56·73	...	...	1,200 0 0	551 12 0	1,269 12 0	3,021 8 0	2,496 8 3	
Do. Sirsa	29·0	21·04	...	...	546 15 0	327 12 0	586 14 0	1,461 9 0	1,461 9 0	
Do. Kasganj ...	13·0	10·27	...	...	...	231 0 0	241 0 0	472 0 0	518 10 6	
Do. Mhow	42·42	36·40	...	...	....	960 0 0	817 3 6	1,777 3 6	1,723 8 0	
Do. Rutlam	9·66	9·48	...	...	...	300 0 0	44 0 0	344 0 0	427 8 0	

Southern Mahratta Railway System.

Railway Schools.

Name and Location of Schools.	Attendance. Children. Number on the Roll.	Attendance. Children. Average daily attendance.	Attendance. Apprentices and Workmen. Number on the Roll.	Attendance. Apprentices and Workmen. Average daily attendance.	Annual Contribution. Government grant.	Annual Contribution. Railway grant.	Annual Contribution. Average School Fees.	Annual Contribution. Total.	Annual Expenditure.	Remarks.
Southern Mahratta Railway.							Rs. a. p.	Rs. p. p.	Rs. a. p.	
Hubli Railway School	29	19	...	...	227	600	* 295 10 6	1,122 10 6	1,200 11 8	* This includes interest on deposit in Post Office Savings Bank, grant for prizes and miscellaneous receipts.
Dhárwar do.	33	27	...	...	399	1,105	† 338 0 0	1,842 0 0	1,700 0 0	† Includes Rs. 40 realized by sale of books.
Guntakal do.	58	50	...	...	...	780	168 1 0	948 1 0	837 14 0	
Miraj do.	22	11	...	...	...	240	81 0 0	321 0 0	292 0 0	
Mysore State Railway.										
Arsikeri Railway School	27	24	...	...	...	360	84 0 0	444 0 0	448 7 3	
Bangalore do. ...	23	13	...	...	...	330	120 10 0	600 10 0	516 15 0	

Bhavnagar-Gondal-Junagad-Porbandar Railway.

(Including Jetalsar-Rajkot Railway.)

Railway Schools.

Nme and Location of Schools.	Attendance. Children. Number on the Roll.	Attendance. Children. Average daily attendance.	Attendance. Apprentices and Workmen. Number on the Roll.	Attendance. Apprentices and Workmen. Average daily attendance.	Annual Contribution. Government grant.	Annual Contribution. Railway grant.	Annual Contribution. Average School Fees.	Annual Contribution. Total.	Annual Expenditure.	Outstanding to School.
						Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
B.-G.-J.-P. and J.-R. Railway English School, Jetalsar.	25	21·62	...	...	279	607 8 9	307 10 6	1,194 1 3	1,333 5 9	639 4 6
B.-G.-J.-P. and J.-R. Railway English Vernacular Schools, Jetalsar.	27	23·00	...	...	...	148 9 0	37 7 0	186 0 0	186 0 0	.....

Volunteers.

For the official year ending 31st March 1898.

The following statement shows the enrolled strength of the number of efficients in each Railway Volunteer Corps on the 31st March 1898 :—

Corps.	Enrolled Strength.	Efficients.				Non-efficients.	Sergeant Instructors, 1st and 2nd Class.	Drill Instructors.	Head-quarters.
		Officers.	Non-Commissioned Officers.	Volunteers.	Total.				
G. I. P. Railway Volunteer Rifle Corps.	1,007	29	114	858	1,001	6	10	2	Bombay.
B. B. & C. I. Railway Volunteer Rifle Corps, 1st Battalion.	†673	25	82	*513	620	9	5	1	Do. * Two men struck off in June 1897.
Do. do. F. Coy. (B.-G.-J.-P. Railway).	76	3	9	63	75	1	One 1st class.	...	Bhavnagar Para.
Do. do. (Morvi Railway).	2	...	...	2	2	...	One 1st class.	...	Do.
Do. Second Battalion (R.-M. Railway).	887	33	148	698	879	8	10	...	Ajmere.
Southern Mahratta Railway Volunteer Rifle Corps.	730	18	85	610	713	17	Five 1st class and one 2nd class.	...	Hubli.

† Including 13 Reservists, of whom 2 are non-efficients.

Fuel Consumption.

(For the calendar year ending 31st December 1897.)

G. I. P. Railway System (*Standard Gauge.*)

On the Konkan District (Bombay to Karjat and Bombay to Kasara).	Singareni unscreened, (*a*) English, (*b*) Bengal seaborne, and (*c*) Japanese. (Delivered into boats in Bombay (*a*) from Rs. 16-8-0 to Rs. 17-2-0, (*b*) from Rs. 12-8-0 to Rs. 14-8-0, and (*c*) from Rs. 13-4-0 to Rs. 15 per ton, respectively.)
On the Bhor Ghát (Karjat to Lonavla) ...	(*d*) Singareni unscreened, English, and Bengal seaborne. [(*d*) Delivered into wagons at Yellandu on N.-G.-S. Railway, at Rs. 3-8-5 per ton (*see* note)].
On the Thull Ghat (Kasara to Igatpuri) ...	Singareni unscreened, English, and Bengal seaborne.
On the South-East Line (Lonavla to Raichur).	(*e*) Singareni unscreened, Bengal seaborne, and Japanese. [(*e*) Delivered into wagons at Yellandu on N.-G.-S. Railway, at Rs. 4-8-0 and Rs. 4-4-0 per ton (*see* note)].
On the Dhond and Manmad Section ...	Warora, Singareni unscreened, and Bengal seaborne.
On the North-East Line (Igatpuri to Nandgaon).	(*f*) Warora, Singareni unscreened, Bengal seaborne, and Japanese. [(*f*) Delivered into wagons at Pit's Mouth at Rs. 4-8-0 per ton].
On the North-East Line (Nandgaon to Bhusaval).	Narbada, Warora, Singareni unscreened, and Bengal seaborne.
On the North-East Line (Bhusaval to Khandwa).	(*g*) Narbada, (*h*) Umaria large, (*j*) Umaria nut, and Warora. [(*g*) Delivered into wagons at Mohpani at Rs. 6 and Rs. 5-12 per ton (*see* note)]. (*h*) and (*j*) Delivered into wagons at Umaria—(*h*) at Rs. 4 and (*j*) at Rs. 2-2 per ton, respectively.
On the North-East Line (Khandwa to Jubbulpore).	Narbada, Umaria large, Umaria nut, Warora, Singareni unscreened, and Bengal-Nagpur Coal Company's.
On the section Bhusaval to Nagpur ...	Singareni unscreened, Warora, and Bengal-Nagpur Coal Company's.
On the section Wardha to Warora ...	Warora.
On the Khamgaon Section	Warora and Bengal-Nagpur Coal Company's.
On the Amraoti Section	(*k*) Bengal-Nagpur Coal Company's. [(*k*) Delivered into wagons at Pit's Mouth at Rs. 3 per ton.]

Note.—Singareni Unscreened Coal.

(Deliverd into wagons at Yellandu on N.-G.-S. Railway.)

Delivered to Lonavla and Manmad and stations beyond...Rs. 3-8-5 per ton.
Delivered to stations between Wadi and Lonavla and Wadi and Manmad—
For the first 50,000 tons ... ... „ 4-8-0 „
Anything over 50,000 „ ... ... „ 4-4-0 „

Note.—Narbada Coal.

(Delivered into wagons at Mohpani.)

For first 12,000 tons... Rs. 6-0-0 per ton
For next 8,000 „ ... „ 5-12-0 „

B. B. & C. I. Railway System (*Standard Gauge.*)

(Includes the B. B. & C. I. Railway, H. H. the Gaekwar's Petlad Railway, the Godhra-Rutlam-Nagda and the Nagda-Ujjain Railways.)

The description and quantities of fuel used during the year on this System were :—

English Coal.

	Tons	cwt.	qr.
Nixon's Navigation	3,396	2	0
Ferndale	15,044	17	3
Powell Duffryn	2,169	17	0
Davison's West Hartley	2,228	7	0
	22,839	3	3

Country Coal.

Burrakur	4,260	11	0
Deshurgur	1,822	3	0
Gourangadhi...	1,137	5	0
Borrea or Salanpore	10,282	11	0
Jardine's Navigation	1,020	12	3
Singareni	25,649	8	3
Giridih	2,464	5	0
	46,636	16	2

Rajputana-Malwa Railway System (*Metre Gauge*).

(Includes the Palanpur-Deesa and H. H. the Gaekwar's Mehsana Railways.)

Kurharbaree, Borrea, Gourangadhi, Burrakur and Seebpore coal was used over the whole line, Salanpore Borrea coal between Rutlam and Khandwa, Jardine's Navigation coal between Abu and Sabarmati, Singareni coal between Khandwa and Rutlam, balance of English coal between Sabarmati and Khandwa and unserviceable sleepers over the whole line for lighting up engines.

H. H. The Gaekwar's Dabhoi Railway (2′ 6″ *Gauge*).

The Rajpipla State Railway (2′ 6″ *Gauge*).

The fuel used on these lines is included in the figures for the B. B. & C. I. Railway System.

Southern Mahratta Railway System (*Metre Gauge*).

The description of fuel used during the year on the several sections of the Southern Mahratta Railway (including the Mysore and Kolhapur State Railways) is shown below :—

Name of Sections.	Between Stations.		Description of Fuel.
Poona Branch ...	Poona ...	Miraj ...	Singareni unscreened coal.
	Miraj ...	Londa ...	Firewood.
Kolhapur State Railway ...	Miraj ...	Kolhapur ...	Do.
Main Line	Castle Rock ...	Gadag ...	Do.
Harihar Branch ...	Hubli ...	Harihar ...	Do.
Mysore State Railway ...	Harihar ...	Nanjangud ...	Singareni unscreened coal.
Main Line	Gadag ...	Bezvada ...	
Guntakal-Hindupur ...	Guntakal ...	Mysore Frontier (Hindupur).	
Bijapur Branch ...	Gadag ...	Hotgi ...	

The quantities of the different descriptions of fuel used were :—

	Tons.
Singareni unscreened coal	47,401
Firewood	49,997

The fuel supplied under all the contracts was of good quality and arrangements for delivery were satisfactory, with the exception of a few thousand tons of coal which, although of inferior quality, had been purchased from a private contractor, the Hyderabad-Deccan Company not being able to meet the additional demand.

BHAVNAGAR-GONDAL-JUNAGAD-PORBANDAR RAILWAY (*Metre Gauge*).

(Including the Jetalsar-Rajkot and Jamnagar Railways.)

The coal used during the year was as follows :—

Description of Coal.	Quantity.			
For Running Engines.	Tons.	cwt.	qr.	lb.
Coal, Cardiff	5,284	7	2	0
Do. Bengal	722	11	3	20
Do. Sibpore	647	0	2	20
Do. Gourangadhi	382	14	1	4
Issued to Workshops.				
Coal, Cardiff	108	2	1	0
Do. Bengal	283	1	0	19
Do. West Hartley ...	349	9	2	16
Do. Hulton Smithynuts ...	9	4	3	16

The Gourangadhi Bengal coal was obtained for trial, but did not prove satisfactory.

MORVI RAILWAY (2′ 6″ *Gauge*)

The quantities of the different descriptions of coal used were :—

	Tons.
Cardiff	1,306
Bengal	106
Japanese	145
Australian	6

Cardiff coal was found to be best for the small locomotives of this line. Other coal was used for experimenting, but it did not suit the locomotives.

BARSI LIGHT RAILWAY (2′ 6″ *Gauge*).

Coal is used on this Railway.

Railway Police.

For the calendar year ending 31st December 1897.

G. I. P. RAILWAY SYSTEM WITHIN THE BOMBAY PRESIDENCY.

The office of the Superintendent of Police, G. I. P. Railway, was held from the 1st January to the 1st June by Mr. H. R. Hume and by Mr. F. L. Goldsmid from that date till the close of the year.

The total number of cases reported during the year was 782 as against 1,374 during 1896, showing a decrease of 592, which was more apparent than real,

being due to a great extent to a Circular issued by Mr. Henderson, which was in force from the 1st January 1896 till August of the same year and by which all missing goods cases were registered as crimes, thereby greatly swelling the number of cases in the year.

Excluded cases decreased from 621 to 113, due to the modification of Mr. Henderson's order with regard to 'Missing goods', above referred to. Seven cases were declared maliciously false. One man, whose case was undisposed of at the close of 1896, was sentenced to nine months' imprisonment, and in another case 4 persons were fined and the amount given as compensation, while a third case, in which prosecution was ordered, was pending.

Of the total number of 704 cases disposed of within the year, 260 were classed as undetected, or a percentage of 36 as against 41 in the year previous.

Real cases of crime decreased from 776 in 1896 to 681 in 1897; those under Indian Penal Code from 512 to 460. The decrease was chiefly due to the modified system of registration referred to above. The percentage of conviction to true cases disposed of under the Indian Penal Code improved by 9 per cent., but this seems to be due to the large number of missing goods cases which had been registered last year as crimes and which had to be classed as undetected.

The number of persons arrested, including 15 from the previous year, was 698 as against 624, which shows that the large increase of crime noticed in 1896 still further increased, the number arrested in 1895 being 301. This great increase is attributed to the effects of famine which is no doubt a correct, though not altogether a satisfactory explanation of the matter. It is, however, a matter for congratulation that thefts from passing trains which were so common during the famine of 1876-77, were almost unknown during the year under report owing to a force of armed police being sanctioned to prevent them. There was also a small but general falling off in convictions both as regards cases and persons. This is attributed to want of discrimination in making arrests.

As regards serious crimes, as in the previous year, one murder was committed. In the first instance no crime was suspected, but enquiries elicited the fact that murder had been committed probably outside railway limits and the body afterwards placed on the line. Five persons were arrested, but were discharged for want of sufficient evidence.

As against 7 dacoities in 1896, 4 were reported during the year under consideration, and 2 were pending from 1896. Of these 6, 3 (including the 2 pending cases) remain undetected, 1 ended in conviction; 1 was declared false but not maliciously so, and 1 was pending at the close of the year. The dacoity which ended in conviction was an important one and 2 of the dacoits were killed by the Khándesh Police, and of the 12 persons arrested 5 were convicted and received heavy sentences.

Of the 7 robberies, including a pending one, as against 9 in 1896, 3 were excluded, 2 ended in conviction, 1 remained undetected, and in 1 the accused was discharged. One of these cases was a serious one, in which case 3 Phánse Párdis mounted a passing a train and threw 8 bags of grain from one of the wagons to their confederates. A report was made on the train arriving at Sholápur, and a party of Police from Sholápur and another from Hotgi followed them up and found the men actually dividing the grain. Being out-numbered, the Police were compelled to fire. One man was mortally wounded and died shortly afterwards. Seven others were arrested and eventually punished.

Cases of house-breaking with intent to commit theft increased from 23 to 27, and 7 were pending from the previous year. Of these, 2 were pending at the end of the year, 3 ended in conviction, 4 were declared to be false charges, 1 was acquitted and 24 remained undetected, which is a bad record and is accounted for only by the facts that the offences occur for the most part at gate-houses at a distance from other habitations; that the property is generally grain, which cannot be recognized; that the victims are too frightened to give reliable evidence, and that the Police are only informed when detection is almost hopeless.

The following table shows the number of thefts and their classification :—

	Convicted.		Discharged.		Undetected.		Pending.		Total.	
	1896.	1897.	1896.	1897.	1896.	1897.	1896.	1897.	1896.	1897.
Thefts from goods sheds and stations	96	132	7	10	121	110	25	15	249	267
Thefts from running trains	11	4	1	...	65	29	13	...	90	33
Thefts from persons	33	26	1	1	56	39	15	3	105	69
Total ...	140	162	9	11	242	178	53	18	444	369

This is a satisfactory result inasmuch as the percentage of convictions to true cases improved from 31·5 to 43·9. The increase in thefts from goods sheds and stations, however, was rather the effect of Mr. Henderson's circular already referred to. The diminution in offences, and especially as regards thefts from running trains, is satisfactory.

The Police were very unsuccessful in recovering stolen property. The value of property reported to have been stolen during the year was Rs. 19,396 as against Rs. 48,538 in the previous year; but the total amount dealt with was Rs. 30,644 as compared with Rs. 51,912 in 1896. The percentage of recovery to property stolen thus fell from 30·79 in 1896 to 11·42 in the year under report.

The total number of non-cognizable crimes on the G. I. P. Railway increased from 52 in the year 1896 to 90 in the year under report. The increase noticed above was found chiefly in the offences under the Railway Act owing to a large number having been preferred on the portion of the line passing through the Poona and Thána districts. No special reason can be assigned in the case of Poona, but the majority of prosecutions were under Section 120 of the Railway Act. In Thána, the increase has been mainly accounted for by the fact that a special agency was employed to examine railway tickets of passengers which led to the detection of several instances of travelling without a proper ticket or beyond the authorized distance. Including one case of the previous year, the number of cases for disposal was 91 and of these, only one case was referred to the Police for investigation as against 3 in the preceding year. In connection with these cases, 129 persons appeared before Courts, of whom 4 were discharged or acquitted, 122 convicted and 3 were under-trial at the close of the year. The percentage of convictions rose from 70 to 94.

The strength of the force stood at 613 men, as against 616 men in 1896; and the total cost amounted to Rs. 1,56,244 as compared with Rs. 1,41,594. The length of line supervised was 794 miles.

B. B. & C. I. and Rajputana-Malwa Railways.

The following officers were in charge of the different offices during the year :—

Superintendent of Police—

Mr. Acklom from 1st January 1897 to 25th March 1897.

Mr. Noble from 26th March 1897 to the end of the year.

Assistant Superintendent of Police, Bandikui—

Mr. Tregear from 1st January 1897 to 2nd December 1897.

Mr. Clabby from 3rd December 1897 to the end of the year.

Assistant Superintendent of Police, Indore—

Rái Bahádur Kishorilal throughout the year.

Assistant Superintendent of Police, B. B. & C. I. Railway—

Mr. Phillips throughout the year.

The total number of cognizable cases under "All Classes" during the year numbered 1,404 as against 1,408 in the previous year. Under the Indian Penal

Code there were 1,214 cases as against 1,223. Including cases pending from the previous year, the number of cases for disposal was 1,461 as compared with 1,476. Of these, 98 were struck off, leaving 1,363 for disposal. Of these 1,363, 54 were pending at the close of the year, and of the balance which were disposed of 665 were classed as undetected and 640 were brought to trial, 558 ending in conviction and 4 cases by the death of and abandonment of the charges against the accused. Under the Indian Penal Code alone, the number of cases for disposal during the year was 1,267 and the number of real cases disposed of was 1,135 as compared with 1,277 and 1,087 respectively in 1896. Of the 1,135 real cases disposed of, 653 were undetected, and of the 481 brought to trial 409 ended in conviction. The percentages of convictions compared with the previous year are as follows:—

	Cases ending in conviction to real cases disposed of.		Cases ending in conviction to real cases decided by trial.	
	1896.	1897.	1896.	1897.
Indian Penal Code	41·39	36·03	86·87	85·03
All classes	47·90	42·62	88·48	87·18

Indian Penal Code cases ending in conviction to cases disposed of show a falling off of 5 per cent. and in "All Classes," there is a falling off of 5 per cent. for which no explanation has been given; in cases ending in conviction to cases decided by trial, the percentage of success is about the average of the last two years.

With regard to serious crime, as compared with one murder in 1896, two occurred during the year under report, of which one ended in conviction and the other remained undetected. The two persons remaining under trial at the close of the previous year were convicted during the year. Attempts at murder and culpable homicide numbered three as against one in the previous year, of which the two under the first heading ended in conviction and the one under the latter was excluded. Under dacoity one case was reported as against two in 1896, and this case remained undetected, although the Police claim to have arrested the persons implicated, they were unable to obtain sufficient evidence against them. As against 10 cases of robbery in 1896, 2 cases were reported, one of which was undetected, the other excluded. Under house-breaking, 79 real cases were disposed of as against 75. Of these 79, 5 were convicted as against 6, or 6 per cent. as against 8 in 1896—a very unsatisfactory result. The Police were equally unsuccessful in dealing with cases of theft. The number of real thefts disposed of was 934 as againt 892 in 1896, convictions being 315 as against 366, or a percentage of 33 as compared with 41 in the previous year, showing a very poor measure of success.

Cases of receiving stolen property decreased from 59 to 48. Including 2 cases pending from the previous year, the number for disposal was 50 as against 61 in the preceding year. Of the 50 cases 6 were excluded and 44 were decided by trial, 40 ending in conviction.

Of the 1,461 cases for disposal under "All Classes" 98 were excluded as against 161 in 1896, and under Indian Penal Code of 1,267, 85 were excluded as against 146 in the year 1896. One case was declared maliciously false. In this case no prosecution was instituted, but the Magistrate in discharging the accused awarded him compensation of Rs. 50.

The total number of undetected cases has increased by 84, the number under "All Classes" being 665 in 1897 as compared with 581 in 1896, and under Indian Penal Code 653 as compared with 569. Of the 665 undetected cases, 74 come under "House-breaking" with intent to commit theft and 566 under "Thefts." With regard to pending cases, under "All Classes," 54 remained over as against 48 in 1896. Of the 54, 44 were under investigation by the Police and 10 under disposal by the Magistracy, the figures for the previous year being 31 and 17 respectively.

Eight hundred and eighty-two persons were arrrested during the year under report, 664 being in Indian Penal Code cases. Including persons pending from the previous year, the number for disposal was 912, 688 being under the Indian Penal Code. The following are the percentages of convictions in the two years :—

	Persons convicted to persons arrested by the Police *suo motu*.		Persons convicted to those disposed of by trial.	
	1896.	1897.	1896.	1897.
Indian Penal Code	76·29	73·23	77·99	77·44
All classes...	77·90	75	79·49	79·03

In persons convicted to persons arrested, there is a slight falling off in success, whereas in persons convicted to those disposed of by trial, the results are practically the same as last year.

Property valued at Rs. 39,140 only was stolen in 1897 as compared with Rs. 87,515 in 1896. Inclusive of the property valued at Rs. 7,457, which remained over at the end of 1896, the total value of the stolen property to be accounted for during the year under report was Rs. 46,597 as against Rs. 92,374 in the previous year, while the percentage of recovery has fallen from 66 in 1896 to 26 in the year under report—an unsatisfactory result. Railway property to the value of Rs. 8,538 was stolen as against Rs. 9,795 in 1896, and Rs. 1,754 recovered as against Rs. 2,383 in 1896.

Seventy-three persons with stolen property valued at Rs. 13,569 belonging to foreign jurisdiction were arrested by the Police and handed over to their respective jurisdiction.

The following table shows how the thefts are classified :—

Year.	Thefts from		
	Section Goods Sheds and otherwise.	Running Trains.	Passengers.
1896	526	79	283
1897	591	122	223

The number of thefts from goods in the custody of the Railway Police has risen from 71 to 109, which is very unsatisfactory. Thefts from running trains have also increased and have not been successfully dealt with, but a scheme is under consideration by which it will be difficult for wagons to be opened in future.

The number of non-cognizable crimes has decreased from 235 in 1896 to 200 in the year under report. The decrease is noticeable mostly in offences under the Railways Act and it is found on the portions of the B. B. & C. I. Section passing through Broach, Kaira, Surat and Ahmedabad Districts. This is explained as being due to the decrease in passenger traffic on account of plague restrictions. In connection with the 200 cases, 234 persons appeared before Courts, of whom 205 were convicted and 20 were discharged or acquitted. The percentage of convictions was 87 as against 86 in the previous year.

The total force of the whole system consisted of 193 officers and 1,004 men. The total length of line supervised during the year was 2,220 miles, and the total cost of the force was Rs. 2,26,917.

Southern Mahratta Railway System within the Bombay Presidency.

Mr. Warden was in charge throughout the year.

The total number of cases reported during the year under "All Classes" amounted to 285 as against 247 in the previous year, but cases of true crime show an increase of about 18. The total number of cases for disposal, including those pending from the previous year, was 294, or 38 more than in the year 1896; of these, 14 were pending at the close of the year—8 with the Magistracy and 6 with the Police, as compared with 9 in 1896.

Of the 294 cases for disposal, 109 were excluded—98 as false but not maliciously so, 7 as maliciously false, 3 as non-cognizable, and 1 as no offence under Section 83 of the Indian Penal Code. The number of excluded cases has increased by 22 as compared with the previous year. In three of the maliciously false cases proceedings were instituted, but only one ended in conviction. In one of the remaining cases, the Magistrate awarded compensation under Section 560 of the Criminal Procedure Code and directed the accused to proceed against the complainant, while in a fifth case proceedings were ordered but could not be instituted as the witnesses had left their homes on account of famine. In the remaining cases the evidence was insufficient.

Under the Indian Penal Code the number of cases reported amounted to 206 against 176 in the preceding year.

With regard to serious crime there was, in the previous year, but one case of murder, that of a gateman, for his money. No clue to the murder could be obtained.

As against 25 cases of house-breaking with intent to commit theft in 1896, 19 occurred in the year under report, and including three cases of the previous year, the number for disposal under this head was 22. Of these, 6 were excluded and 3 pending at the close of the year. Of the remaining 13, 11 remained undetected and 2 resulted in conviction, an unsatisfactory result.

Under "Thefts" 165 cases were reported as against 120 in 1896, but of true cases the increase was 21, *i.e.*, 89 as compared with 68. This increase is attributed partly to prevalence of famine in almost all the districts through which the line passes. Several thefts of bags of grain occurred between Poona and Salpa, which necessitated the adoption of special measures, which resulted in the total cessation of the form of theft, though no cases were actually detected. Of the 89 true cases of thefts reported during the year 25 were from running trains, 6 from passengers, and the rest from stations, &c.

The subjoined table shows the classification of the thefts :—

Year.	Stations and Goods sheds.	Trains.	Otherwise.
1896	32	11	31
1897	34	26	30

Of the 34 thefts, 14 were committed from goods sheds, 10 of which were detected and resulted in conviction, I was pending at the close of the year, and the remaining 3 remained undetected. There were 26 thefts from trains as against 11 in 1896, showing an increase of 15 cases; of these, 9 ended in conviction and the remaining 17 are undetected.

Two true cases of receiving stolen property occurred during the year against 14 in the previous year. These two with one pending from the previous year were decided by trial, and two resulted in conviction.

Real cognizable cases disposed of during the year under report under the Indian Penal Code amounted to 111, of which 61 or 55 per cent. ended in con-

viction as against 66 per cent. in the previous year, and the number of undetected cases increased from 32 to 47. In explanation of this increase it is stated that in most of the undetected cases the property stolen consisted of grain, which was presumably distributed and consumed immediately, rendering identification impossible. And that for the increase in such cases, famine was directly responsible. The number of cases pending at the close of the year was 9 (as against 7 in 1896)—5 before the Magistracy and 4 with the Police. Of the 64 cases decided by trial, 61 or a percentage of 95 ended in conviction, practically the same as in the previous year.

Of the 94 persons arrested in Indian Penal Code cases, 1 was released by the Police and 1 remained under trial before a Magistrate at the close of the year. The remaining 92 were sent up for trial, of whom 67 or 73 per cent. were convicted as compared with 72 per cent. in the preceding year. Similarly the percentage of convictions to the total number arrested shows an improvement from 70 to 72 per cent.

The total value of stolen property, including Rs. 154-2-0 from the previous year, amounted to Rs. 5,473-2-3, an increase of over Rs. 300 over that of the year before. The percentage of the value of property recovered to that stolen was 52, showing an improvement of 2 per cent. as compared with the previous year, but the percentage with regard to cases shows a falling off of 13 per cent., being 66 as compared with 79.

The total number of non-cognizable crimes was 38. They were all instituted on complaints ; comprising 7 under the Railways Act, 2 under the District Police Act, 25 under the Conveyance Act, and 4 under the Indian Penal Code. In the previous year, the number was 30, all under the Railways Act, 14 having been instituted on complaints and 16 taken up by the Magistrates. None were referred to the Police for investigation as against one in the preceding year. Thirty-seven cases were tried and 24 ended in conviction. One case was compounded. In connection with these cases, 45 persons appeared before Courts, of whom 24 were convicted and 19 acquitted or discharged. The percentage of convictions was 53·33 as against 57 in the preceding year.

As compared with last year there has been a slight increase of crime, and a falling off in percentages of cases ending in conviction which is attributed partly to experienced men having to be moved to stations where they were required for Famine or Plague duty, their places being filled by recruits, and partly to the number of thefts of grain resulting from famine, most of which were undetected, it being impossible to identify grain removed from bags.

The jurisdiction of the Superintendent of Police remained the same as in 1896, *viz.*, 722 miles. The strength of the Police Force also remained the same *viz.*, 311 men ; whilst its total cost amounted to Rs. 67,004 as compared with Rs. 67,446 in 1896.

Bhavnagar-Gondal-Junagad-Porbandar Railway.

(Including the Jetalsar-Rajkot and Jamnagar Railways).

The sanctioned strength of the force during the past year was :—

Subordinate officers	19
Constables and men	77
Total ...	96

and the total cost was Rs. 23,212-1-0.

During the year 141 cases of cognizable crime were reported against 86 in the preceding year. Of these 28 were excluded from the register by order of the Magistrates as not being cognizable crimes. Of the remaining 113, 38 cases were sent up for trial, out of which 24 resulted in conviction and 12 in acquittal or discharge, and two were pending decision.

The percentage of cases ending in conviction slightly dropped during the year, *viz.*, from 71·79 to 63·15, the latter percentage being the same as in 1895-96.

The amount of property stolen was valued at Rs. 22,772-2-8, as compared with Rs. 3,260-12-11 in 1895-96 and Rs. 3,055-6-5 in 1896-97.

The recovered property amounted to Rs. 865-15-11, as compared with Rs. 1,823-4-7 in 1895-96 and Rs. 1,994-10-6 in 1896-97. The percentage of recovered property to stolen property stands at 3·8 as compared with 65·26 in 1896-97 and 55·92 in 1895-96.

These unsatisfactory figures are almost entirely due to three large theft cases wherein the value of property stolen amounted to Rs. 19,837, and none was recovered.

There were no cases of Thuggee, but a technical dacoity was committed on the 12th May at 9 P.M. near Nawgadh, when gateman Ramsingh's hut was forcibly entered and sundry articles stolen.

The total number of persons arrested during the year was 84, as compared with 69 in the preceding year and 58 in 1895-96. The prosecution of these persons resulted as follows :—

Convicted	29
Acquitted or discharged	35
Awaiting or pending trial	3

The percentage of persons convicted to persons sent up for trial dropped from 62·5 to 43·28, the percentage in 1895-96 being 56·14.

G. A. ANDERSON,
Officiating Consulting Engineer for Railways.

Bombay, 10th September 1898.

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